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CATALOGUE
OF THE
OFFICERS AND STUDENTS
OF
THE COLUMBIAN UNIVERSITY,
WASHINGTON, D. C.,

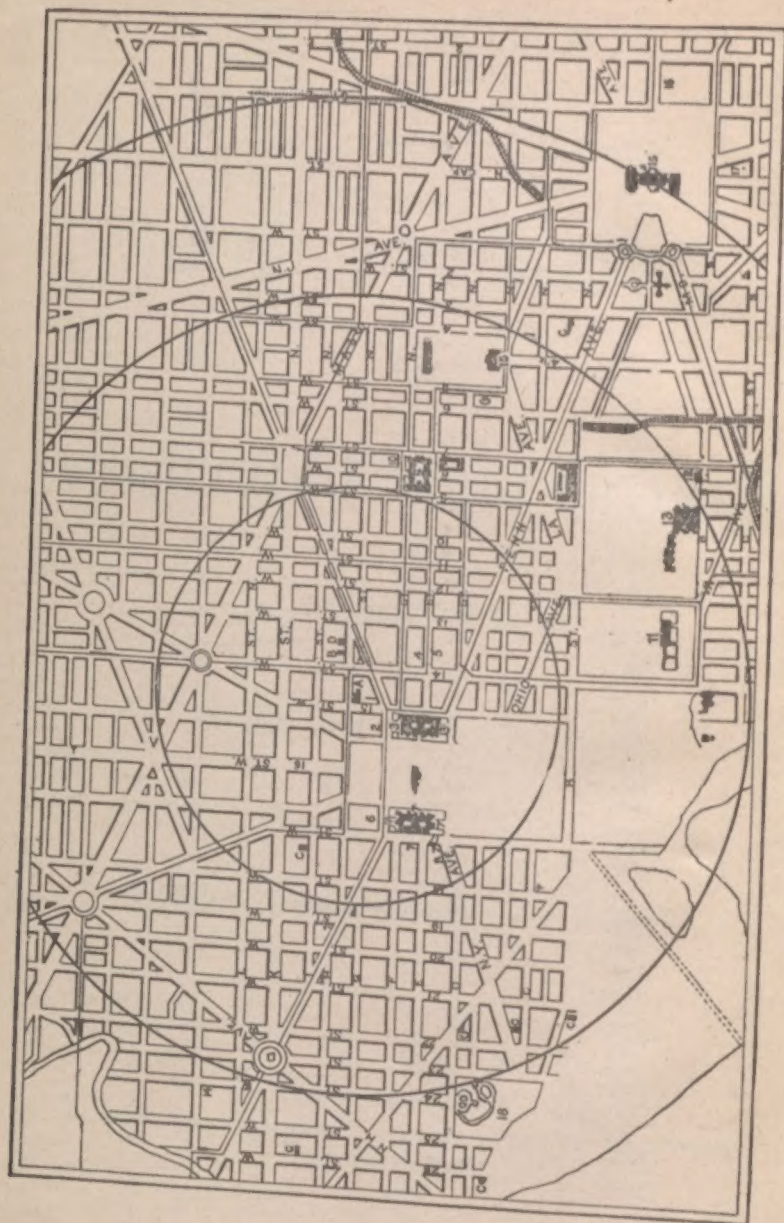
FOR THE ACADEMIC YEAR 1893-'94.

FROM THE UNIVERSITY PRESS.

JUDD & DETWEILER,
PRINTERS TO THE UNIVERSITY AND TO THE SCIENTIFIC SOCIETIES
OF WASHINGTON.
1894.

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WASHINGTON, D. C.:
JUDD & DETWEILER, PRINTERS,
1894.



KEY TO THE MAP.

The circles on the map are drawn with radii of 2,000, 4,000, and 6,000 feet respectively from the main building of the University as a center.

A—The main building of the University, southeast corner 15th and H streets N. W.

B—The Preparatory School.

C C C C—Parcels of ground belonging to the University.

D—The Medical and Dental School building.

Libraries numbered in the order of their proximity to the University.

Within less than a five or six minutes' walk :

1.	Library of Department of Labor,	8,000 volumes.
2.	" " Department of Justice,	30,000 "
3.	" " Treasury Department,	22,000 "
3.	" " Light-House Board,	4,000 "
4.	" " Bureau of Statistics,	5,000 "
5.	" " Geological Survey,	31,000 "
5.	" " Bureau of Ethnology,	5,000 "
6.	" " Corcoran Gallery of Art,	2,500 "
7.	" " War Department,	37,000 "
7.	" " Navy Department,	25,000 "
7.	" " Department of State,	50,000 "
7.	" " War Records Office,	2,000 "
7.	" " Hydrographic Office,	3,000 "
7.	" " Nautical Almanac Office,	2,000 "
8.	" " Museum of Hygiene,	10,500 "

Within a five or ten minutes' ride by the street railway :

9.	Library of United States Patent Office,	50,000 volumes.
—	" " Interior Department,	12,000 volumes.
—	" " Post Office Department,	10,000 volumes.
10.	" " Bureau of Education,	30,000 volumes.
11.	" " Department of Agriculture,	20,000 volumes.
12.	" " Army Medical Museum,	105,000 volumes.
13.	" " United States National Museum,	16,000 volumes.
14.	" " United States Weather Bureau,	11,000 volumes.

Within a fifteen minutes' ride by the street railway :

15.	The Library of Congress,	700,000 volumes.
15.	The Library of the United States Supreme Court,	80,000 volumes.
15.	The Library of the Smithsonian Institution,	250,000 volumes.
16.	Site of the new Congressional Library.	
17.	Library of the United States Coast and Geodetic Survey,	12,000 volumes.
18.	Site of the old United States Naval Observatory.	

Within a thirty minutes' ride by the street railway :

Library of the new United States Naval Observatory (not indicated on map), 13,000 volumes.

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1894.

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UNIVERSITY CALENDAR.

Current Academic Year, 1893-'94.

1893.

Sept.	15.	} Examination of Candidates for admission to College,	Friday.
	16.		Saturday.
Sept.	18.	—First College Term begins.	Monday.
Sept.	18.	—First Term of Preparatory School begins.	Monday.
Oct.	2.	—Session of Medical School begins.	Monday.
Oct.	3.	—Session of Corcoran School begins.	Tuesday.
Oct.	4.	—Session of Law School begins.	Wednesday.
Oct.	5.	—Session of Graduate School begins.	Thursday.
Nov.	22.	—Anniversary Meeting of Alumni.	Wednesday.
Nov.	30.	} Thanksgiving recess.	
Dec.	2.		
Dec. 25—Jan. 1, 1894.—Christmas recess.			

1894.

Jan.	18.	—First College Term Examinations begin.	Thursday.
Jan.	25.	—First Corcoran Term Examinations begin	Thursday.
Feb.	1.	{ Second Term of College and Corcoran School begins.	{ Thursday.
Mar. 23-26.—Easter recess.			
April	16.	{ Examination of Candidates for Degrees in the Columbian College and the Corcoran Scien- tific School begins.	{ Monday.
May	3.	{ Commencement of Medical and Dental Schools.	{ Thursday.
May	15.	{ Report of Examinations for Degrees in the Graduate School closed.	{ Tuesday.
May	21.	{ Second Term Examinations of College and Corcoran School begin.	{ Monday.
May	22.	—Law School Examinations for Degrees end.	Tuesday.
June	10.	—Baccalaureate Sermon.	Sunday.
June	11.	—Exhibition Day.	Monday.
June	11.	—Commencement of the Graduate School.	Monday.
June	11.	—Closing Exercises of Preparatory School.	Monday.
June	12.	—Commencement of Law School.	Tuesday.
June	13.	{ Commencement of College and Corcoran School.	{ Wednesday.
June	18.	—Annual Meeting of the Corporation.	Monday.

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(v)

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1894.

Next Academic Year, 1894-'95.

1894.

Sept.	21.	} Examination of Candidates for admission to College.	{	Friday.
	22.			Saturday.
Sept.	24.	—First College Term begins.		Monday.
Sept.	24.	—First Term of Preparatory School begins.		Monday.
Oct.	1.	—Session of Medical School begins.		Monday.
Oct.	2.	—Session of Corcoran School begins.		Tuesday.
Oct.	3.	—Session of Law School begins.		Wednesday.
Oct.	4.	—Session of Graduate School begins.		Thursday.
Nov.	29.	} Thanksgiving recess.	{	
Dec.	1.			
Dec. 24—Jan. 1, 1895—Christmas recess.				

1895.

Jan.	17.	—First College Term Examinations begin.	Thursday.
Jan.	24.	—First Corcoran Term Examinations begin.	Thursday.
Feb.	1.	{ Second Term of College and Corcoran School begins.	} Friday.
Apr.	12-15.	—Easter recess.	
April	16.	{ Examination of Candidates for Degrees in the Columbian College and the Corcoran Scientific School begins.	} Tuesday.
May	2.	{ Commencement of Medical and Dental Schools.		} Thursday.
May	14.	{ Report of Examinations for Degrees in the Graduate School closed.	} Tuesday.
May	20.	{ Second Term Examinations of College and Corcoran School begin.		} Monday.
May	21.	—Law School Examinations for Degrees end.	Tuesday.
June	9.	—Baccalaureate Sermon.	Sunday.
June	10.	—Anniversary Meeting of Alumni.	Monday.
June	10.	—Exhibition Day.	Monday.
June	10.	—Commencement of the Graduate School.	Monday.
June	11.	—Commencement of Law School.	Tuesday.
June	12.	{ Commencement of College and Corcoran School.	} Wednesday.
June	14.	—Closing Exercises of Preparatory School.		Friday.
June	17.	—Annual Meeting of the Corporation.	Monday.

EDUCATIONAL FACILITIES OF WASHINGTON.

Washington is rich beyond any other American city, not only in the special libraries enumerated in the page facing the map, but also in large collections, illustrative of the various arts and sciences, which have been accumulated at the National Capital by the action of Congress through a long series of years. Under many of these heads Washington is not surpassed by any European capital. In view of the fact that in collecting these archives and materials it was the original purpose of the Government "to promote research and the diffusion of knowledge," the Congress of the United States has made these treasures accessible to students under the terms of the following Joint Resolution, approved April 12, 1892:

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the facilities for research and illustration in the following and any other governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

1. Of the Library of Congress.
2. Of the National Museum.
3. Of the Patent Office.
4. Of the Bureau of Education.
5. Of the Bureau of Ethnology.
6. Of the Army Medical Museum.
7. Of the Department of Agriculture.
8. Of the Fish Commission.
9. Of the Botanic Gardens.
10. Of the Coast and Geodetic Survey.
11. Of the Geological Survey.
12. Of the Naval Observatory."

The Columbian University is further authorized to state that certain libraries of eminent men of science connected with the scientific service of the Government, and some of which are exceptionally valuable, will be open to such students of the Graduate School as shall be qualified to use them for purposes of original research.

Educational Relations of the University.

The Columbian University has no organic connection with any literary or scientific department of the Government, but its relations with them all are close and intimate. The President of the United States, the Chief

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Justice of the United States, and the Attorney General are honorary members of its Board of Trustees. Two Associate Justices of the Supreme Court of the United States, and two Associate Justices of the Supreme Court of the District of Columbia are active members of its Law Faculty. The President of the University is a Regent of the Smithsonian Institution and the Chairman of its Executive Committee. The President of the University is a Director of the National Deaf-Mute College, and the President of that College is a Trustee of the University. The directors of the United States Geological Survey, the Bureau of Ethnology, and the United States National Museum are Trustees of the University. The Smithsonian Institution, the National Museum, the United States Naval Observatory, the Nautical Almanac Office, the Signal Corps of the United States Army, the Army Medical Museum, the Coast and Geodetic Survey, the United States Department of Education, the United States Weather Bureau, the Bureau of Chemistry, and the Bureau of Animal Industry of the Department of Agriculture, and the Bureau of the Mint, are all represented in the Faculty of the University, and some of these departments have several representatives in its teaching body. The pathology of mental diseases is taught in the Medical School by one of the physicians in charge at the Government Hospital for the Insane, and the President of the University is a member of its Board of Visitors. The National Academy of Sciences is represented both in the Board of Trustees and in the Faculty of the University. The President of the National Geographic Society and the President of the Anthropological Society of Washington are members of its Board of Trustees. The President of the Society of Philosophical Inquiry is Professor of Philosophy in the University. The President of the Columbian Engineering Society is the Professor of Civil Engineering in the Corcoran Scientific School and in the Graduate School of the University. The President of the University is the President of the Philological Association, established under the auspices of the Columbian University.

Other Scientific Facilities in Washington.

Washington is as much the scientific centre as it is the legislative, executive, and judicial centre of the United States. The great scientific operations of the Government have their bureaus of direction and administration at the National Capital, and with each of these bureaus a large corps of scientific workers is necessarily connected. For purposes of scientific stimulus and inquiry these workers are here gathered into societies, which hold public meetings for the reading and discussion of papers. The membership of the several societies comprises an aggregate

of more than 1,100 persons. The Anthropological Society, Dr. Otis T. Mason, President, numbering, according to the last Scientific Directory, 201 active, 36 corresponding, and 21 honorary members, meets fortnightly or oftener, on Tuesday evenings. The Biological Society, Professor C. V. Riley, President, with 152 active and 38 corresponding members, meets on alternate Saturdays, from October to May. The Chemical Society, Dr. W. H. Seaman, President, with 102 members, holds meetings on the alternate Thursdays of each month. The Entomological Society, Professor William H. Ashmead, President, with 38 resident and 85 corresponding members, meets on the first Thursday of each month. The National Geographic Society, the Hon. Gardiner G. Hubbard, LL.D., President, with 946 members, meets every Friday. The Philosophical Society, Dr. Robert Fletcher, President, with 167 active and 66 non-resident members, holds its sessions on alternate Saturdays. The Mathematical Section of this Society, Professor J. Howard Gore, Chairman, meets on Wednesday, at irregular intervals, in the mathematical lecture room of the Columbian University. The Society of Philosophical Inquiry, Professor J. Macbride Sterrett, President, meets every Tuesday afternoon during term time in the philosophical lecture room of the Columbian University. The Columbian Engineering Society, Professor Francis R. Fava, Jr., C. E., President, meets on the first and the third Tuesday of each month in the Engineering Hall of the University. The Philological Association of the Columbian University, Dr. James C. Welling, President, meets at the call of the Secretary in the Latin recitation room of the University. The Geological Society, Dr. C. D. Walcott, President, comprising 114 active members and 23 corresponding members, meets on the second Wednesday of each month. The annual meetings of the Anthropological, Biological, Geographic, and Philosophical Societies, and occasionally their special meetings of public interest, are held in the main lecture hall of the Columbian University.

The National Academy of Sciences, Professor O. C. Marsh, President, meets annually in Washington in April.

During the Christmas holidays the Lecture Halls of the University are occupied from year to year by the American Historical Association, the American Church History Association, the Modern Language Association of America, the American Folk-Lore Society, and the American Dialect Society, for the purposes of their annual meetings. As many as eighteen national or international societies held their annual meetings in the University building during the year 1891-'92. These meetings are open to the students of the University.

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1894.

THE UNIVERSITY CORPORATION.

JAMES C. WELLING, LL. D., *President of the Corporation.*

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THE CHIEF JUSTICE OF THE UNITED STATES.
THE ATTORNEY-GENERAL OF THE UNITED STATES.

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CHARLES W. NEEDHAM, Esq.
J. J. DARLINGTON, LL. D.
SAMUEL W. WOODWARD, Esq.
ROBERT H. MARTIN, Esq.

JOHN T. GIVEN, *Secretary.*
ROBERT H. MARTIN, *Treasurer.*

**Standing Committees of the Corporation for the Academic
Year 1893-'94.**

Executive Committee.

MESSRS. GREENE, GALLAUDET, GIVEN, WELLING, and MARTIN.

Committee on Nominations to Fill Vacancies in the Corporation.

MESSRS. WILLIAMS, STAKELY, and WOODWARD.

Committee on the Preparatory School.

MESSRS. WILSON, MASON, and WOODWARD.

Committee on the Columbian College.

MESSRS. STAKELY, GREENE, and DARLINGTON.

Committee on the Medical and Dental Schools.

MESSRS. NOYES, CURRY, and MARTIN.

Committee on the Law School.

MESSRS. MATTINGLY, CURRY, and NEEDHAM.

Committee on the Corcoran Scientific School.

MESSRS. POWELL, HUBBARD, and MASON.

Committee on the School of Graduate Studies.

MESSRS. GOODE, GALLAUDET, and WELLING.

Auditing Committee.

MESSRS. GIVEN, WILSON, and NEEDHAM.

Committee on Increase of University Endowment.

MESSRS. LEVERING, GREENE, NOYES, ELLIS, and HUBBARD.

ALUMNI ASSOCIATION
OF THE
COLUMBIAN UNIVERSITY.

OFFICERS, 1895-'96.

President:

MYRON M. PARKER.

Vice-Presidents:

W. P. CARR, M. D.

C. A. DAVIS.

Secretary:

H. L. HODGKINS.

Treasurer:

JOHN B. LARNER.

Executive Committee:

MYRON M. PARKER, *Chairman.*

C. W. APPLE, D. D. S.

F. L. AVERILL.

E. H. BOOTH.

W. P. CARR, M. D.

C. A. DAVIS.

H. E. DAVIS.

W. E. HANDY, M. D.

E. B. HAY.

GEO. W. HAY, D. D. S.

H. L. HODGKINS.

A. F. A. KING, M. D.

JOHN B. LARNER.

A. P. MONTAGUE.

JESSE H. WILSON.

The Alumni have recently commenced work on an organized plan for the increase of the University Library.

An illustrated historical Catalogue of the University has recently been published by the Alumni Association, and unbound copies may be purchased from the Secretary for fifty cents each, and bound copies for one dollar each.

ENDOWMENTS.

The value of the University's property and endowments is estimated at about \$1,000,000. The endowments need an increase in every direction. New buildings, or an enlargement of existing structures, are required to accommodate the great increase of students in the Law, Medical, Dental, and Scientific Schools.

The proposed School of Comparative Jurisprudence calls for an endowment of \$250,000.

The following announcements, approved by the Board of Trustees, are extracted from the Annual Report of 1891:

1. Scholarships are rated at two thousand dollars each, and friends of the University are invited to found one or more of them.

2. Fellowships and lectureships are rated at ten thousand dollars each, the proceeds of the funds to be devoted to endowing courses of lectures or to paying the expenses of meritorious students.

3. Professorships are rated at eighty thousand dollars each, and special "Schools" or "Departments" at two hundred thousand dollars, the income to be devoted to the support of professors or of such Schools, in accordance with the present organization of the Columbian College, the Corcoran Scientific School, and the School of Graduate Studies.

By an act of Congress approved March 3, 1873, the act to incorporate The Columbian College, in the District of Columbia, approved February 9, 1821, was so far modified as to provide, *inter alia*, "that said Corporation shall be hereafter known and called by the name of The Columbian University, and in that name shall take, hold, and manage all the estate and property now belonging to said College, or that may hereafter be conveyed, devised, or bequeathed to said Corporation by its original name."

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FORMS OF BEQUESTS.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of — thousand dollars, to be applied, at their discretion, to the general purposes of the University.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of — thousand dollars, to be safely invested by them and called the — Scholarship fund. The interest of this fund shall be applied, at their discretion, to the encouragement of deserving students.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of — thousand dollars, to be safely invested by them as an endowment for the support of (the School of —), a Professorship of —, (a Lectureship in the School of —), a Fellowship in the School of —) in the University, &c.

It may be proper to explain that the term "School" has both a general and a special signification in the classifications of the Columbian University. Generally, it means a combination of several associated chairs, such as the "Law School," the "Medical School," the "School of Graduate Studies." Specially, it means any separate specialty which forms an integral part of these larger combinations, as the "School of English," the "School of Greek," the "School of Chemistry." Such specialties may sometimes require a large corps of associated professors and instructors. The flexibility of the system lends itself to organic growth by fostering an unlimited specialization of science or culture in connection with an unlimited combination of University studies. In the Corean Scientific School a separate specialty is called a "Department."

DIRECTORY OF THE COLUMBIAN UNIVERSITY.

ACADEMIC YEAR 1893-94.

JAMES C. WELLING, *President of the University.*

A. B., Princeton College, 1871, and A. M., 1874; President of St. John's College, Maryland, 1880; LL. D., Columbian University, 1887; Professor of Belles-Lettres, Princeton College, 1875; President of Columbian University, 1880; President of American Gallery of Art, 1882; Regent of Smithsonian Institution, 1884, and Chairman of its Executive Committee, 1886; Director of the National Debt Mute College, 1888; United States Commissioner Columbian Exposition at Madrid, 1887; 1107 Connecticut Avenue.

CLEVELAND ABBE, *Professor of Meteorology.*

A. B., New York City College, 1887; A. M., 1890; Ph. D., 1891; LL. D., University of Michigan, 1889; 1717 I Street NW.

G. N. ACKER, *Demonstrator of Pathological Histology and Clinical Professor of Medicine.*

A. B., Penn College, 1878; A. M., 1880; M. D., Columbian University, 1882; University of Berlin, 1886; Demonstrator of Internal Physiology, 1888; Clinical Professor of Medicine, Columbian University, 1891; Visiting Physician Children's Hospital, 1884, and Cornell Hospital, 1892; Lecturer on Physiology, Washington Training School for Nurses, 1884; 433 Sixteenth Street NW.

SAMUEL SHUGART ADAMS, *Clinical Professor of Diseases of Children.*

A. B., West Virginia University, 1878, and A. M., 1880; M. D., University of Georgetown, 1881; Lecturer on Diseases of Children, University of Georgetown, 1884-85; Professor of Theory of Practice of Medicine, National University, 1884-85; Attending Physician to the Children's, the Garfield Memorial, and the Foundling Hospitals, and the Washington Home for Invalids; Consulting Physician to the Women's Hospital; Professor of Clinical Pediatrics, Columbian University, 1886; Chairman of the Committee of Arrangements of the Pan American Medical Congress, 1890, and the Congress of American Physicians and Surgeons, 1892; Secretary of the American Pediatric Society, and of the Medical Society of the District of Columbia; 1000 K Street NW.

CYRUS ADLER, *Professor of Oriental History and Archaeology.*

A. B., University of Pennsylvania, 1878, and A. M., 1880; Fellow of Johns Hopkins University, 1888-89; Ph. D., 1888; Instructor in Semitic Languages, 1888-89; Associate in Semitic Languages, 1889-90; Commissioner for the World's Columbian Exposition to the Orient, 1890; Assistant Curator of Oriental Antiquities and Religious Ceremonials, United States National Museum, 1887; Librarian of the Smithsonian Institution, 1882; 423 K Street NW.

(CXX)

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LOUIS AMATEIS, *Professor of Architectural Drawing.*

Gold Medalist Royal Academy of Fine Arts, Turin. 1887. Nineteenth Street

WOOLSEY ASPINWALL, *Instructor in English.*

1891. Rhode Island Avenue

FRANK LLOYD AVERILL, *Assistant in Field Engineering.*

C. E. Columbia University. 1887.

1891. Fifteenth Street NW

FRANK HAGAR BIGELOW, *Professor of Solar Physics.*

A. B. Harvard. A. M. 88. Assistant at Cordova. Nautical Almanac Office. 88. United States Weather Bureau. 1891. Massachusetts Avenue

JONAS EMIL BLOMÉN, *Instructor in Physics.*

Ph. C. Altheman College, Stockholm, Sweden. 1880. Graduate Military Engineering Academy, Stockholm. 1881. Commissioned Lieutenant of Engineers of the R. S. A. 1881. Director of the International Magnetic Survey at Upsala. 88. Ph. D. Upsala University. 1884.

HENRY CARRINGTON BOLTON, *Non-resident Lecturer on the History of Chemistry.*

A. M. Columbia College. 1887. Ph. D. Göttingen. 1887. Assistant in Analytical Chemistry, School of Mines, Columbia College. 1888. Professor of Chemistry, Western Medical College, New York. 88. Professor of Chemistry, Trinity College, Connecticut. 88. President New York Academy of Sciences. 88. University Club, New York.

ANDREW COYLE BRADLEY, *Lecturer on Criminal Law and on Criminal Pleading and Practice.*

L. L. B. Harvard University. 1881. Associate Justice of the Supreme Court of the District of Columbia. 1887. 1891. Q Street NW

CLARENCE A. BRANDENBURG, *Instructor in Practical Commercial Law.*

L. L. B. Columbia University. 1888 and L. L. M. 1889. 1891. N Street NW

DAVID J. BREWER, *Professor of the Law of Corporations.*

A. B. Yale College. 1866. L. L. B. Albany Law School. 1868. A. M. Yale College. Judge of Kansas District Court. 1869. Justice, Supreme Court State of Kansas. 1870. Judge Circuit Court of the United States. Judge Circuit Court. 1871. L. L. D. Iowa College. 1875. Washington College. 1888. Associate Justice Supreme Court of the United States. 1891. L. L. D. Yale University. 1891. 1891. Massachusetts Avenue NW

ISAAC W. BREWER, *Professor of the Chair of Anatomy.*

M. D., Columbia University. 1888.

WILLIAM K. BUTLER, *Professor of Ophthalmology.*

A. M., Columbia University. 1881. M. D. 1888. Surgeon in Charge, Lutheran Eye, Ear, and Throat Infirmary, Washington, D. C. 1891. M Street NW

WILLIAM P. CARR, *Professor of Physiology.*

M. D. Columbia University. 1888.

1891. Thirteenth Street NW

IMMANUEL M. CASANOWICZ, *Lecturer on Ancient Statistics.*

B. D. Theological School of Basel, Switzerland. 1881. Instructor of Latin and Greek. 88. Professor of Hebrew and Church History and Hausfather Theological School at Newark, N. J. 1887. Student of Semitic and Christian Ethnology and sometime Lecturer on East Biblical Hebrew at Johns Hopkins University. 88. Ph. D. Johns Hopkins University. 89. Preparation of the literary work of the Exhibit of Religions at the United States National Museum. 89. 1891. Tenth Street NW

GEORGE V. CHANDLER, *Assistant in Mineralogy and Geology.*

Examiner United States Patent Office.

11 C Street SE.

THOMAS MAREAN CHATARD, *Lecturer on Chemical Engineering.*

A. B. Mt. St. Mary's College, Maryland, 1861; and A. M., 1888, S. B. Harvard College, 1891; S. S., 1894; Instructor United States Navy Torpedo Station, Newport, R. I., 1894; Instructor University of Pennsylvania, 1895; Ph. D., University of Heidelberg, 1897; Chemist United States Geological Survey, 1898-99.

100 K Street NW.

JOHN J. CHICKERING, *Associate Principal, Preparatory School.*

A. M. Amherst, 1872; LL. M., Columbian University, 1892.

Kendall Green, D. C.

ALEXANDER SMYTH CHRISTIE, *Professor of Mathematical Physics.*

Chief of Field Division United States Coast and Geodetic Survey, 1888-91; LL. B., Columbian University, 1888; LL. M., National University Law School, 1888.

Marquette, Minn.

JAMES R. CHURCH, *Professor of the Chair of Anatomy.*

M. D., Columbian University, 1886.

FRANK WIGGLESWORTH CLARKE, *Professor of Mineral Chemistry.*

B. S., Harvard, 1880; Professor of Chemistry and Physics, University of Cincinnati, 1881-83; Chief Chemist United States Geological Survey, 1885; Honorary Curator of Minerals, United States National Museum, 1887.

1000 Riggs Place NW.

WILLIAM L. CLARK, *Assistant Demonstrator.*

D. D. S., Columbian University, 1893.

1224 New York Avenue NW.

WALTER S. COX, *Professor of the Law of Real and Personal Property, of Contracts, and of Crimes and Misdemeanors.*

A. B., Georgetown College, 1843; A. M., 1845; LL. B., Harvard University Law School, 1847; LL. D., Columbian University, 1888; Associate Justice Supreme Court of the District of Columbia, 1887; Trustee of Congressional Academy of Art, 1888.

1004 I Street NW.

ANDREW FULLER CRAVEN, *Assistant Professor of Economics.*

LL. B., Chicago University, 1869; A. B., Harvard University, 1869; Ph. D., Johns Hopkins University, 1893.

1608 Seventeenth Street NW.

GEORGE EDWARD CURTIS, *Assistant in Meteorology.*

B. A., Yale University, 1882; M. A., 1887.

1107 M Street NW.

HENRY E. DAVIS, *Lecturer on the History of Law.*

A. B., Princeton College, 1870; A. M., 1872; LL. B., Columbian University, 1888; LL. M., 1870; Assistant Attorney, District of Columbia, 1888; Associate Professor of Practice and Judge of Most Court, 1888.

1875 Jefferson Place NW.

R. B. DONALDSON, *Clinical Operator.*

D. D. S., Maryland Dental College, 1877; Honorary D. D. S., Baltimore College Dental Surgery, 1878.

1309 F Street NW.

WILLIAMS DONNALLY, *D. D. S., Clinical Operator.*

D. D. S., University of Michigan, 1880; Secretary Board of Dental Examiners for the District of Columbia, 1892-93; President, 1893.

1414 Fourteenth Street NW.

GEORGE HENRY EMMOTT, *Lecturer on the Civil Law.*

A. B. and LL. B. University of Cambridge (Eng.), 1870; A. M., 1882 and LL. M., 1884; sometime Associate and Lecturer on Roman and English Law in Victoria University (Eng.); Lecturer in English Law to the Birmingham Eng. Law Society, 1880-81; now Professor of Roman Law and Comparative Jurisprudence in the Johns Hopkins University.
Johns Hopkins University, Baltimore, Md.

EDWARD FARQUHAR, *Instructor in English.*

Assistant in United States Patent Office Library, 1885. 2008 F Street NW.

FRANCIS RENATUS FAVA, *Professor of Civil Engineering.*

C. E., 1882, Polyt., Zurich. 717 Sixteenth Street NW.

PETER FIREMAN, *Assistant in Chemistry.*

Graduate Classical Gymnasium at Charkov, Russia, 1881; Ph. D., Berne University, Switzerland, 1890. 208 Second Street NE.

WORTHINGTON C. FORD, *Lecturer on Statistics.*

Chief of United States Bureau of Statistics, 1893. Metropolitan Club.

EDWIN H. FOWLER, *Assistant in Topographic Drawing.*

B. S., Dartmouth, 1888. 1126 East Capitol Street.

FELIX FREYHOLD, *Assistant in Iron and Steel Construction.*

C. E., Lehigh, 1888. 200 First Street SE.

EDGAR FRISBY, *Professor of Astronomy.*

A. B., University of Toronto, 1880; and M. A., 1894; Acting Professor of Mathematics, Northwestern University, 1887; Assistant, United States Naval Observatory, 1888; Professor of Mathematics, United States Navy, 1888.
480 Thirty first Street

THEODORE NICHOLAS GILL, *Professor of Zoology.*

A. M., Columbian University, 1898; M. D., 1866; Ph. D., 1870. National Museum.

WILLIAM S. GOODALL, *Assistant Demonstrator of Anatomy.*

M. D.

JAMES HOWARD GORE, *Professor of Mathematics and Geodesy.*

B. S., Columbian University, 1870; Ph. D., 1888. 1521 New Hampshire Avenue.

WILLIAM M. GRAY, *Demonstrator of Normal Histology.*

M. D., University of Pennsylvania, 1880. Microscopist of the Army Medical Museum; Director of the Lionel Laboratory. 2134 P Street NW.

ADOLPHUS WASHINGTON GREELY, *Professor of Geography.*

Brigadier General and Chief Signal Officer, United States Army; Queen's Gold Medal, Royal Geographical Society, 1885; Gold Medal, Paris Geographical Society, 1885; Chief of Signal Service Corps, 1887. 1914 G Street NW.

JONATHAN R. HAGAN, *Demonstrator in Charge of Infirmary.*

D. D. S., Columbian University, 1890. 1224 New York Avenue NW.

W. S. HARBAN, *Clinical Operator.*

D. D. S., Baltimore College of Dental Surgery, 1877. 1342 New York Avenue NW.

JOHN M. HARLAN, Professor of the Constitutional Jurisprudence of the United States, of the Law of Domestic Relations, of Commercial Paper, and of Torts.

A. B. Centre College, Kentucky, 1850. LL. B. Transylvania University, 1853.
Attorney General of Kentucky, 1863. Associate Justice of the United States Supreme Court, 1872.
Cor. Fourteenth and Euclid Streets.

WILLIAM T. HARRIS, Professor of Philosophy.

Honorary A. M., Yale, 1855. LL. D. University of Missouri, 1857. Honorary
"Officer of the Académie," 1880, and Honorary "Officer of Public Instruction,"
1880, by decree of French Government. United States Commissioner of Edu-
cation, 1881. Editor of the Journal of Speculative Philosophy. Ph. D. Brown
University, 1880.
Cor. Twenty-third Street NW.

GEORGE BYRD HARRISON, Professor of Paediatrics.

M. D. University of Virginia, 1874.
Cor. Fourteenth Street NW.

EDWIN B. HAY, Instructor in Penmanship and Book-keeping.

B. S., Columbian University, 1871. LL. B. 1874.
Cor. Corcoran Street NW.

WILLIAM P. HAY, Assistant in Zoology.

B. S. Butler University, 1870. Assistant in Biology, Butler University, 1870.
M. S. Butler University, 1871. Instructor in Zoology, Central High School,
D. C., 1892.
Central High School.

EVERETT HAYDEN, Assistant Professor of Geography.

Graduate of the Boston Public Latin School, 1850, and the United States Naval
Academy, 1852. Assistant Geologist, United States Geological Survey, 1879.
Meteorologist, United States Naval Hydrographic Office, 1880.
Ensign, United States Navy, retired.
Cor. Sixteenth Street NW.

H. G. HODGKINS, Registrar and Librarian.

Professor, Nautical Almanac Office, 1880. Instructor in Mathematics, Colum-
bian University, 1887. A. B., 1888. Instructor in Mathematics,
Cor. Q Street NW.

HOWARD LINCOLN HODGKINS, Professor of Mathematics and Physics.

A. M., Columbian University, 1883. Ph. D., 1892.
Cor. T Street NW.

DEANE C. HOWARD, Clinical Assistant.

M. D. Columbian University, 1893.

L. C. F. HUGO, Clinical Operator.

D. D. S. Baltimore College Dental Surgery, 1880. S. E. Seventeenth Street NW.

A. J. HUNTINGTON, Professor of Greek.

A. B., Columbian College, 1863. A. M., 1890. D. D. Brown University, 1868.
Cor. N Street NW.

E. HILTON JACKSON, Assistant in Latin.

A. B., Columbian University, 1891. LL. B., 1892. LL. M., 1893.
Cor. Q Street.

H. L. E. JOHNSON, Professor of Urology.

M. D., Columbian University, 1889.
Cor. L Street NW.

JOHN SCOTT JOHNSON, Assistant in Applied Mathematics.

B. S., Columbian University, 1893.
Cor. Corcoran Street.

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L.L. B. Columbian University, 1881. L.L. M., 1884.

148 L Street NW.

WILLIAM W. JOHNSTON, *Professor of Theory and Practice of Medicine.*

M. D. University of Pennsylvania, 1870. Consulting Physician to Garfield Memorial Hospital and President of the Medical Staff. Consulting Physician to the Children's and Emergency Hospitals. ex-President of the Medical Society of the District of Columbia and of the Washington Obstetrical and Gynecological Society. Member of the Association of American Physicians and Surgeons from 1879 to 84.

162 K Street NW.

A. F. A. KING, *Professor of Obstetrics and Gynecology.*

M. D., Columbian University, 1881. M. D. University of Pennsylvania, 1879. Honorary A. M., University of Vermont, 1884. Professor of Obstetrics, Columbian University. Professor of Obstetrics, University of Vermont, 1877. Dean of Medical and Dental Faculties, Columbian University. Consulting Physician to the Women's Dispensary, 1880. Children's Hospital, 1882. Obstetrician to the Columbia Hospital, 1872. 111 Massachusetts Avenue NW.

HARRY KING, *Professor of Drawing.*

L.L. B., Columbian University. Chief Draftsman Tenth Census, 1881. President Special Board of Examiners for Drawing, United States Civil Service Commission, 1880. Chief Draftsman United States Geological Survey, 1879. and United States General Land Office, 1876. Member of United States Board on Geographic Names, 1880.

140 Q Street NW.

FRANK HALL KNOWLTON, *Professor of Botany.*

B. S., Middlebury College, 1884. M. S., 1887. United States National Museum.

FRANK LEECH, *Clinical Assistant.*

M. D., Columbian University, 1880.

Garfield Hospital.

J. S. LEMON, *Lecturer on Psycho-Physics.*

A. B., Wesleyan University, 1864. A. M., 1867. Principal of Brownville High School. Professor of Physics, Marion Institute. Principal of Almond College State Institute. Principal of Macedon Academy, all in New York, since 1868. Episcopal Rector and Editor of the Religious Department of the *National Tribune*, Washington, D. C. Clark University, 1880-84.

National Tribune Office.

EXUM PERCY LEWIS, *Assistant Junior Professor of Physics.*

B. S., Columbian University, 1888. Assistant in Physics, Johns Hopkins University, 1891.

1000 Vermont Avenue NW.

J. HALL LEWIS, *Professor of Dental Prosthetics.*

D. D. S., Baltimore College of Dentistry, 1877.

1334 F Street NW.

NATHAN SMITH LINCOLN, *Emeritus Professor of Surgery.*

A. B., Dartmouth College, 1820. M. D., University of Maryland, 1832. A. M., Dartmouth College, 1853. Professor of Chemistry and Natural History, Columbian University, 1853-54. Professor Theory and Practice of Medicine, 1859-60. Assistant Surgeon, District of Columbia Volunteers, 1861. Surgeon-in-charge Quartermaster's Hospital, United States Army, 1861-62. Professor of Anatomy and Physiology, Columbian University, 1862-63. Professor of Surgery, 1862-72. Member of Board of Visitors to West Point Military Academy, 1880. L.L. D., Dartmouth College, 1882.

1814 H Street NW.

LEE DAVIS LODGE, *Professor of French and Philosophy.*

A. M., Columbian University, 1888. Ph. D., 1892.

1728 Eighteenth Street NW.

THOMAS E. MCARDLE, Professor of Minor Surgery.

A. B. St. Mary's University, Baltimore, 1874; A. M., 1875; M. D., University of Georgetown, 1876; Lecturer on Genito-Urinary Diseases, Georgetown University; Professor of Surgery, National University; Secretary of the Medical Society of the District of Columbia; Assistant Editor of *Walsh's Repository*, 1887.
501 Sixteenth Street NW.

ROBERT H. MARTIN, Secretary and Treasurer.

1638 Seventeenth Street NW.

OTIS TUFTON MASON, Lecturer on Anthropology.

A. B. Columbian University, 1887; A. M., 1888; Ph. D., 1889; Principal of Preparatory School, 1880-84; Curator of the Department of Ethnology, United States National Museum, 1884; Member of the Anthropological Institute of Great Britain and Ireland, of the Société Royale des Antiquaires du Nord, of the Société d'Anthropologie de Paris, of the Société Italienne d'Anthropologie, Florence; Officer d'Instruction Publique, France, 1890.
1225 Massachusetts Avenue NW.

WILLIAM E. MATTINGLY, Lecturer on Practical Commercial Law.

Ph. B. Columbian University, 1887; A. M., 1888.
1046 H Street NW.

WILLIAM A. MAURY, Professor of Equity Jurisprudence, of Common Law and Equity Pleading, and of the Law of Evidence.

L.L. B. Harvard, 1880; L.L. D. Columbian University, 1888; Assistant Attorney General of the United States, 1892-93.
1007 Massachusetts Avenue NW.

GEORGE P. MERRILL, Professor of Geology and Mineralogy.

B. S. State University of Maine, 1887; Assistant in Chemistry, Wesleyan University, 1888; Assistant, United States National Museum, 1888; M. S. State University of Maine, 1888; Curator, Department of Geology, United States National Museum, 1888; Ph. D. State University of Maine, 1888; Lecturer on Economic Geology, Maryland Agricultural College, 1892-93; Cosmos Club.

EMIL H. MEYER, Assistant in Free-hand Drawing.

Graduate Maryland Institute, School of Art and Design; Peabody Prize, 1881; Instructor of Free-hand Drawing, 1881; awarded two medals, Royal Academy of Fine Arts, Munich, 1887-88; awarded free scholarship under Professor Franz von Litz, 1887; Graduate Royal Academy of Fine Arts, Munich (Honorable Mention, 1887); Professor of Portrait and Men's Life Classes, Art Students' League, D. C., 1893.
1401 New Hampshire Avenue NW.

JOSEPH S. MILLS, Assistant in Qualitative Analysis.

A. B. Western Maryland College, 1887; Tutor of Latin, 1887; Assistant in Chemistry, Washington High School, 1891-92; Instructor in Chemistry, 1893; A. M., Western Maryland College, 1893.
715 M Street NW.

ANDREW PHILIP MONTAGUE, Professor of Latin and Principal of the Preparatory School.

A. M., Columbian University, 1879; Ph. D., 1888.
1514 Corcoran Street.

VERANUS A. MOORE, Assistant Demonstrator of Pathological Histology.

B. S., Cornell University, 1887; Assistant Demonstrator of Pathological Histology, 1887; M. D., Columbian University, 1890; First Assistant, Division of Animal Pathology, Bureau of Animal Industry, Department of Agriculture.
1401 Park Street.

EDWARD A. MUIR, Instructor in Machine Drawing.

Graduate of Franklin Institute in Mechanical Drawing, 1887.
512 Third Street NW.

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CHARLES EDWARD MUNROE, Professor of Chemistry, Dean of the Graduate and Vocational Scientific Schools.

S. B. Harvard University, 1871; Assistant in Chemistry, Harvard University, 1872-74; Professor of Chemistry, United States Naval Academy, 1874-80; Chemist to Torpedo Corps, United States Navy, 1880-82; 1729 Ruggs Place NW.

H. B. NOBLE, Sr., Clinical Operator.

D. D. S., Baltimore College of Dental Surgeons, 1887; 1323 New York Avenue NW.

A. CLARK PATTERSON, Professor of Mental Diseases.

M. D., Columbian University, 1879; Government Hospital for the Insane.

WILLIAM F. R. PHILLIPS, Professor of the Chair of Anatomy.

M. D., Columbian University, 1888; Lecturer on Hygiene, 1887; 333 M Street NW.

JOSIAH PIERCE, JR., Professor of Drawing.

Associate King's College, London, 1877; A. B. (Mathematical Honors), Emmanuel College, Cambridge, 1880; A. M. Cambridge, 1881; Associate Member Institution Civil Engineers, London, 1880; Fellow Med. Hist., 1888; Principal Assistant Engineer, City of Baltimore, Topographical Survey, 1884; 113 Massachusetts Avenue NW.

D. WEBSTER PRENTISS, Professor of Maternal Medicine and Therapeutics.

Ph. B., Columbian University, 1862; Assistant Surgeon, Quartermaster's Hospital (D. C.), 1861-64; A. M., Columbian University, 1867; M. D., University of Pennsylvania, 1864; Acting Assistant Surgeon, United States Army, 1864-66; Physician-in-charge of eye and ear service, Columbian Dispensary, 1864-68; Lecturer on Dietetics and Administration of Medicines, Nurse Training School, and Dean of the Faculty, 1870-78; Trustee, 1880-84; President of the Board, 1884; Visiting Physician to Providence Hospital, 1881; Consulting Physician, Children's Hospital and Central Dispensary; Commissioner of Pharmacy of the District of Columbia; President of the Board, 1888; 113 Fourteenth Street NW.

HENRY ROGERS PYNE, Assistant in Ancient Languages.

A. B., Columbian University, 1882; 1712 S Street NW.

MARATHON MONTAGUE RAMSEY, Assistant in Spanish and Italian.

Translator, Army Medical Library, 1880; Official Translator, International American Conference, 1880; Special clerk for the Collection and Classification of Military Information from Abroad, 1882; 212 H Street NW.

HERBERT LOUIS RICE, Assistant in Astronomy.

Assistant, United States Nautical Almanac; B. S., Columbian University, 1873; Nautical Almanac Office.

THEODORE W. RICHARDS, Assistant Demonstrator of Anatomy.

M. D.

CHARLES W. RICHARDSON, Professor of Laryngology and Otology.

M. D., Columbian University, 1884; University of Pennsylvania, 1884; 1112 I Street NW.

POWHATAN W. ROBERTSON, Assistant in Finance.

A. M., Eastman National Business College, 1887; 1416 Fifteenth Street NW.

ALVA SIGEL ROUSH, Assistant Demonstrator.

A. M., Ohio University, 1884; M. S., Medical College of Ohio, 1887; M. D., St. Bartholomew's, London, 1887; D. D. S., Columbian University, 1890; 716 Eleventh Street NW.

STERLING RUFFIN, Professor of Medical Jurisprudence.

M. D., Columbian University, 1872.

Treasury Department.

HERMANN SCHOENFELD, Professor of German.

Ph. D., Leipzig, 1887.

115 H Street NE.

EMIL A. DE SCHWEINITZ, Professor of Chemistry and Toxicology.

A. B. University of North Carolina, 1882 and Ph. D., 1884; Ph. D. University of Göttingen, 1886. Professor of Chemistry, Lexington, Ky., 1888. Chemist, Biochemic Laboratory, Department of Agriculture, 1887. 173 K Street NW.

D. K. SHUTE, Professor of Anatomy.

A. B., Columbian University, 1877; M. D., 1881.

1321 Q Street NW.

SAMUEL M. SHUTE, Professor of the English Language and Literature.

A. B., University of Pennsylvania, 1871; A. M., 1874; D. D., Mercer University, 1887. 1321 Q Street NW.

WILLIAM EDGAR SIMONDS, Professor of the Law of Patents.

LL. B., Yale University, 1880. Lecturer on Patent Law, Yale Law School, 1884; Speaker of Connecticut House of Representatives, 1885. Trustee, State's Agricultural College, 1887. Member Fifty-first Congress, 1887-9. A. M., Honorary, Yale University, 1888. Legion of Honor, France, 1889. United States Commissioner of Patents, 1891-93. Potter Building, New York City.

THEOBALD SMITH, Professor of Bacteriology and Hygiene.

Ph. B., Cornell University, 1881; M. D., Albany Medical College, 1885. Chief of the Division of Animal Pathology, Bureau of Animal Industry, Department of Agriculture, 1887. Columbia Road.

J. CURTIS SMITHE, Clinical Operator.

D. D. S., Maryland Dental College, 1880; D. D. S., Baltimore College of Dental Surgery, 1877. Clinical Lecturer, Baltimore College of Dental Surgery, 1881. New York Avenue NW.

ANTONIO M. SOTELDO, Professor of Spanish.

A. B. Caracas National College, Venezuela, 1885; LL. B. University of Merida, Venezuela, 1886 and LL. D., 1891. Secretary, Tribunal of Caracas, 1887. Judge, Tribunal of Caracas, 1891. Representative, National Congress, 1897. and Senator, 1898. Commissioner of the Government of Venezuela to the Dutch Island of Curaçao, 1899. Rector, National College of La Paz, Caracas, 1899. Diplomatic Minister of Venezuela to the Government of the United States, 1888. Solicitor for the Department of Foreign Affairs, 1888. Venezuelan Commissioner on a Special Mission to the United States, 1888. Delegate of the Government of Venezuela to the Auxiliary Congresses of the Columbian Exposition, 1888. Venezuelan Judge of Awards for the Columbian Exposition, 1893.

J. MACBRIDE STERRETT, Professor of Philosophy.

A. B., University of Rochester, 1867; B. D., Cambridge Episcopal Seminary, 1870; D. D., University of Rochester, 1886. Professor of Ethics and Apologetics in the Seabury Divinity School, 1882-90. Pierce Mill Road.

HENRY C. THOMPSON, Professor of Operative Dentistry and President of the Dental Faculty.

D. D. S., Philadelphia College Dental Surgery, 1883.

1113 Pennsylvania Avenue NW.

J. FORD THOMPSON, Professor of Surgery.

M. D., University of Maryland, Acting Assistant Surgeon, United States Army, 1861-65. 17 Seventeenth Street NW.

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WILLIAM F. MATTINGLY, Esq.,
(of the Washington Bar,
Lecturer on Practical Commercial Law.

THE HON. WILLIAM EDGAR SIMONDS, A.M., LL.B.,
(Sometime United States Commissioner of Patents,
Professor of the Law of Patents.

THE HON. ANDREW C. BRADLEY,
(Associate Justice of the Supreme Court of the District of Columbia,
Lecturer on Criminal Law and on Criminal Pleading and Practice.

WILLIAM G. JOHNSON, LL.M.,
(of the Washington Bar.)
Professor of Legal Catechetics and Judge of Moot Court.

The Law School of the Columbian University is held in the University Building, situated on the southeast corner of Fifteenth and H streets, only a few steps from the Executive Mansion and the Executive Departments of the Government.

Admission.

The course of study is adapted to graduates of colleges and to any who have attained a competent discipline of their mental powers. No one is admitted as a candidate for graduation in the Senior Class who has not spent one year either at this or some other law school or performed a corresponding amount of study under the direction of a member of the bar.

Matriculation.

No fee is charged for Matriculation, but the fee for at least one month's tuition must be paid in advance on registration. The register will be open for the enrollment of students on the first day of September. Seats in the Lecture Hall will be assigned to students in the order of their registration, but seats so assigned will be forfeited on the non-payment of monthly dues.

Sessions.

The entire course of study in the undergraduate department embraces two years. The annual session begins on the first Wednesday of October and ends on the Tuesday next before the second Wednesday in June. The exercises of the School begin daily at 6 o'clock p. m., an arrangement which enables the University to profit by the services of eminent jurists engaged in the public service at Washington, and gives to students

the entire day for study, for reading in the law libraries, or for attending the several Courts at the Federal Capital, besides permitting young men engaged in office duties to enjoy the facilities of the School.

Course of Instruction.

The School has three classes, a Junior and a Senior in the undergraduate department, and a graduate Class in Practice.

Junior Class.

PROFESSOR COX.

Associate Justice of the Supreme Court of the District of Columbia.

The instructor of the Junior Class, aiming to secure for his pupils as thorough and accurate a knowledge of the law of real and personal property, of contracts, and of crimes and misdemeanors as it is possible for them to attain within the brief period of a scholastic year, places in their hands successively Blackstone's Commentaries, Kent's Commentaries, Parsons on Contracts, and Byles on Bills, as text books, to be carefully read and studied. He meets the class on Tuesday, Thursday, and Saturday of each week. For each meeting a lesson of moderate length is assigned, and the lesson for the evening forms the subject of his lecture. In his lecture he reviews, illustrates, and simplifies, as far as he can, the teaching of the lesson, shows how far and in what particulars the law contained in it has been repealed or modified, either by English or American statutes or by the American common law, and tries to remove the doubts and uncertainties that are apt to trouble and perplex those entering for the first time upon the study of law: and to insure a careful reading of the lesson and proper attention to his lecture, he, at the close of the latter, questions the class upon the important points of each.

On Domestic Relations, on Commercial Paper, and on Torts.

PROFESSOR HARLAN.

Associate Justice of the Supreme Court of the United States.

Mr. Justice HARLAN gives a course of lectures on each of these subjects. While he follows the general order and arrangement in respect to them pursued respectively in Schouler's Domestic Relations, Byles on Bills, and Pollock on Torts, there is no mere study of these as text books. Mr. Justice HARLAN's aim is rather to take leading cases on the various topics, and by discussion of those cases to explain, illustrate, and make distinct the rules and principles of these different departments of law. He also calls upon the students to prepare and return to him criticisms on some of the cases he discusses, and thus invites the active effort of

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all to extract from the opinions the precise matters decided and the reasons therefor. In this way he strives to counteract the tendency to become mere case lawyers and turns the attention to the matter of foundation principles. This course extends through the whole scholastic year.

The Senior Class.

PROFESSOR MAURY.

(Sometime Assistant Attorney General of the United States.)

The students of the Senior Class meet the Professor charged with their special instruction on Monday, Wednesday, and Friday of each week, and, while pursuing the special studies of the Senior course, are required to go a second time through the course of the Junior year, that they may be thoroughly grounded in the law of real and personal property and of contracts.

The special studies of the Senior year begin with Common Law Pleading, in which Stephen on Pleading, as edited by Tyler, is used as the text book of the class. Next follow instructions on the Law of Evidence, with the first volume of Greenleaf on Evidence as a manual. To these succeed instructions in Equity Jurisprudence and Equity Pleadings and Practice, Smith's Manual of Equity and Mitford and Tyler's Pleading and Practice in Equity being the text books used under these heads. The closing part of the course is occupied with the law of Partnership, considered in itself and in its relations to remedies afforded in courts of equity; and, because of their especial character, lectures are given on the remedies, Ejectments, Quo Warranto, Scire Facias, and Mandamus, as also lectures, by way of review, on Pleading and on Evidence, delivered at the close of the whole course.

The method of instruction pursued in this class is as follows: A lesson, comprising a certain number of pages in the text book, is assigned to the class, and on the subject-matter of this lesson the Professor, at his next meeting, lectures according to the requirements of the case. At the next meeting he examines the class on the text and lecture of the preceding meeting, using for this purpose carefully written questions and calling up indiscriminately the members of the class.

Legal Catechetics.

PROFESSOR WILLIAM G. JOHNSON.

The lectures of Professor Cox and of Professor MAURY in the undergraduate department are followed by oral "quizzes" (extending through a whole hour on four days of each week) conducted by Professor WILLIAM G. JOHNSON, a graduate of the School who is familiar with its methods of

instruction. His "quizzes" are additional and supplemental to those of the Professors.

By this catechetical analysis, which proceeds on the basis of carefully prepared questions designed to exhaust the contents of the text books and the lectures, the student is called to expound with clearness and to reproduce with readiness the principles of law explained in both.

It is hoped that such a *recapitulation* review, by emphasizing the explication of difficult points, will not only impress these points on the memory of the student, but will also train him to a useful self-command in their prompt enunciation.

Constitutional Law.

PROFESSOR HARLAN.

Associate Justice of the Supreme Court of the United States.

A course of Lectures on the Constitution of the United States, extending through the whole of each scholastic year, is delivered by Mr. Justice HARLAN, of the Supreme Court of the United States.

In this course the student is first made acquainted with the principles of Constitutional Law which had been established in England at the time our Government was organized, as well as with the history of the origin and formation of the Constitution of the United States. It is sought to show how far the Constitution, in its underlying principles, was an orderly and progressive evolution of political ideas in the British race, and how far, in its special structure and provisions, it was a new creation, adapted by its framers to the conditions and wants of the American States and people at the date of its formation. Next follows an examination of each separate clause of the Constitution, with a discussion of the leading adjudications which show how each clause of the instrument has been interpreted by the courts, especially by the Supreme Court of the United States.

These Lectures are delivered every Saturday and are open to both the graduate and undergraduate classes of the School.

Law of Corporations.

PROFESSOR BREWER.

Associate Justice of the Supreme Court of the United States.

To those who are engaged in the every-day work of the profession no branch of the law is of greater practical importance than the law of corporations. So much of the business, and the great business, of the day is done by corporations that they furnish a large amount of the litigation; and, because of such importance, special attention is given to it in this School. An extensive course of lectures is delivered by Mr. Justice

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Brewer, in which the fundamental principles, as early established, and the modifications and adaptations of those principles to the work of corporations in the business of today, as settled by the more modern authorities, are fully developed. The study in these lectures is not confined to private corporations, but includes also the subject of municipal corporations, and the differences between the implied powers and liabilities of these two kinds of corporations and the reasons therefor are explained. This course extends through a large part of the year.

International Law.

PRESIDENT WELLING.

After a discussion of International Law in its nature, foundation, and distinctive quality, as exhibited in its genetic ideas and in the laws of its historical growth, the instructor seeks to give a brief exposition of the fundamental principles which constitute the body of this supreme jurisprudence, with their most important applications; alike to the conduct of nations and the conduct of individuals.

These Lectures are open to both the graduate and the undergraduate classes of the School.

The Civil Law.

PROFESSOR EMMOTT.

Professor GEORGE H. EMMOTT, A.M., LL.M., of the Johns Hopkins University, a graduate of the University of Cambridge, England, delivers every year a course of Lectures on the Civil Law, in which the principles of the Roman jurisprudence are expounded under given heads, as well for their intrinsic historical interest as for the light they shed on English Common Law.

Law of Patents.

PROFESSOR SIMONDS.

The Hon. WILLIAM E. SIMONDS, formerly U. S. Commissioner of Patents, delivers a course of Lectures on the Law of Patents, in which, after tracing the origin and growth of our Federal Patent system, he discusses, as far as practicable, the nature of Patent Property and the general nature of Patent Practice considered in its special modes of procedure.

Societies for Legal Debate and Study.

A Debating Society is organized by students of the School for purposes of investigation, discussion, and practice in parliamentary law. This Society holds public exercises under the auspices of the University at

the close of each scholastic year. Special classes ("Quiz clubs") are also formed for purposes of associated study.

Library and Reading-room.

A Law Library, comprising the works of standard text-writers, the British and American Reports, books of reference, etc., is open for purposes of study and consultation daily from 9 o'clock a. m. to 10 o'clock p. m. Attached to the Library is a reading room supplied with Law Reviews and Law Periodicals, as well as with other leading reviews and periodicals in science and literature.

The Library of the Department of Justice, comprising over 22,000 volumes, is open to law students for reference or study and is situated within a two-minutes' walk of the University.

Special Facilities.

Besides this Law Library of the Department of Justice, the Law Library of the United States Supreme Court, containing the largest collection of law books in the country, is open to all who wish to examine any authority or to take notes from any book of reference in ancient or modern jurisprudence. This collection, alike by its variety and its number, lends itself to the study of the world's comparative jurisprudence. The different methods of judicial procedure can be studied at the National Capital not only in the Common Law Courts and Federal Courts of the District of Columbia, but also in the Court of Claims and in the Supreme Court of the United States. The Patent Laws, the Land Laws, and the Pension Laws of the United States are here administered in the Executive Bureaus of the Government.

Examination and Graduation.

All candidates for graduation are required to pass a general examination, at the end of the course, on all the studies of the two years, in the presence of the Faculty and of such committee as the Trustees of the University may appoint. This examination is conducted upon printed questions, which are answered by each student in writing.

The degree of Bachelor of Laws is granted to students who, having passed both years of the prescribed course in the School, or who, on presenting credentials of equivalent study for the first year in some law college or office, and passing the second year in the School, shall sustain a satisfactory examination in all the studies of both the Junior and Senior classes.

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The time spent in the Law School of the University is counted as part of the period of study required for admission to the bar of the Supreme Court of the District of Columbia.

Prizes.

A prize of \$100, called "The Parker Prize," in honor of its donor, MARION M. PARKER, Esq., is awarded to the student who passes in each year the best examination for the degree of Bachelor of Laws.

A prize of \$50, called "The Britton Prize," in honor of its founder, ALEXANDER T. BRITTON, Esq., is awarded to the student who passes in each year the best examination for the degree of Master of Laws.

Three prizes, one of \$40, one of \$30, and one of \$20, are annually given to the respective authors of the best three essays among all those handed in by such members of the Senior Class as shall compete for them and shall pass a successful examination for the degree of Bachelor of Laws.

Two prizes for excellence in debate are awarded by the Debating Society.

Prize Men in 1892 '3.

Parker Prize, WILLIAM H. KELLER, of Pennsylvania.

Britton Prize, (RICHARD NIXON, of Louisiana,
(ROBERT E. WOODS, of Kentucky.

First Essay Prize, WILLIAM H. KELLER, of Pennsylvania.

Second Essay Prize, J. WALTER BARGER, of Indiana.

Third Essay Prize, JOHN A. HIGLEY, of New York.

First Debater's Prize, WALTER W. DAVIS, of Kansas.

Second Debater's Prize, PAUL TRAPPLER GARDNER, of South Carolina.

Commencement.

The degrees are publicly conferred and the prizes delivered at the annual commencement of the Law Department, when, in connection with other appropriate exercises, an address is delivered to the graduating class by an eminent member of the bar whom they and the Faculty may have selected for that purpose.

Expenses.

The entire charge for tuition, lectures, and all the facilities of the School is *eighty dollars* for a single year or *one hundred and fifty dollars* for two scholastic years, payable in advance, half yearly, or in monthly installments, at the option of students. Students who devote three years or more to the preparation for graduation may have this privilege by the payment of *two hundred dollars* for the entire course. If a student shall

for any cause interrupt the studies of either his first or his second year at any point before graduation, or if, at the close of his second year, he shall fail, for any cause, to be graduated, the payments he may have made during either or both of these years will not work exemption from the regular monthly dues of any subsequent year on which he may attend the School, but it shall always be open to him to profit by the benefits of the three years' rule. A charge of *two dollars* is made for diplomas.

Students from abroad can secure Board at reasonable prices. A list of eligible boarding places is always posted on the Bulletin Board of the University.

Graduates of the School are admitted to all lectures of the undergraduate course in subsequent years without charge.

GRADUATE COURSE IN PRACTICE.

A Graduate course of instruction in Common Law Practice and in Equity Pleadings and Practice, designed to show the application of the principles of law to the transactions of business life and to the actual proceedings of courts, is conducted by Professors WILLIAM A. MAURY and WILLIAM G. JOHNSON, as a supplement to the undergraduate course of the Law School. The course leads to the degree of Master of Laws.

In the Common Law Branch the students use, under the direction of Professor JOHNSON, a work on Practice prepared by Professor COX, after which they are exercised in the conduct and trial of causes, and thus taught to apply their theoretical learning in pleadings, practice and evidence. In connection with this course it is intended that they shall also study some such work as Archbold's *Law of Vis Process*. During more than half the term the exercises are those of a *Vis Process* Mock Court, presided over by Professor JOHNSON.

In the Equity Branch the students are instructed by Professor MAURY in the general principles of equity pleadings and in the mode of conducting an equity case. The text book employed will be Murfard and Tyler's *Equity Pleading and Practice*.

In addition to the instruction in legal and equitable procedure, Professor MAURY delivers a special course of lectures on the jurisdiction, practice, and peculiar jurisprudence of the Courts of the United States.

Candidates for admission to this Graduate course are required to furnish evidence that they have been diligent and successful students of law for the term of two years. Diplomas of respectable law schools, certifying that their holders have been graduated after such a term of study, will be received as evidence of qualification for admission to the course. At the end of the course all such students who shall sustain a satisfactory

examination in its instructions and exercises will be entitled to a diploma admitting them to the degree of Master of Laws. Students who have pursued a two years' term of study in a lawyer's office will also be admitted to the course on presenting a certificate of the fact from the lawyer under whose direction they may have studied: but all such students, if aspiring to the degree of Master of Laws, will be required, as a condition precedent of receiving it, to sustain a satisfactory examination for the degree of Bachelor of Laws, as well as for the degree of Master of Laws.

The tuition fee for this course, covering a period of nine months, is *twenty-five dollars*. It does not carry with it the privilege of attending the Lectures of the undergraduate course, except in the case of students who are graduates of the School.

Criminal Law and Procedure.

The Hon. ANDREW C. BRADLEY, Associate Justice of the Supreme Court of the District of Columbia, delivers a series of Lectures on Criminal Law and Criminal Procedure. These lectures will be supplementary to the fourth book of Blackstone, and will show to what extent the principles, in regard to public wrongs, laid down by Blackstone are applicable in this country at the present day, and will treat particularly of other principles and of offences which are either not discussed by Blackstone or do not receive from him the attention which their importance in later times requires.

The Lectures upon Criminal Procedure will treat of pleading and practice in criminal cases, and in discussing the procedure at the trial of criminal cases the difference between criminal and civil practice in regard to the rules of evidence will be pointed out.

The course is open to all the classes of the School.

On Law Books and How to Use Them.

The Hon. AUGUSTUS S. WORTHINGTON, LL. B., a graduate of the Columbian University Law School and formerly United States District Attorney for the District of Columbia, delivers a short course of lectures on English and American text books and reports.

These lectures treat of the organization and relation to each other of the English courts and of the different courts of the United States, State and Federal, as bearing upon the comparative value of their reported opinions considered as precedents, and contain practical suggestions concerning the use of authorities in court and the manner in which the decisions upon a given point can be most readily found.

The course is open to all the classes of the School.

Practical Commercial Law.

WILLIAM F. MATTINGLY, Esq., a member of the bar of the District of Columbia, will deliver a special course of Lectures upon questions constantly arising in business life, in banking, in the use of commercial paper, and in the purchase and sale of merchandise, as illustrated by a study of actual cases.

The course is open to all the classes of the School.

The History of Law.

Professor HENRY E. DAVIS, A. M., LL. M., delivers a course of Lectures giving a general view of the Origin of the English Law and its Development in England and the United States.

The course is open to all the classes of the School.

PROJECTED SCHOOL OF COMPARATIVE JURISPRUDENCE.

The Corporation of the University, at the annual meeting of June, 1892, ordained that a "School of Comparative Jurisprudence, according to the plan already approved, be established as an integral part of our University system."

At the same time the President of the University was instructed to visit the leading universities of Europe in which jurisprudence is taught according to the comparative method, in order to collect available information under this head for the use of the Board. The organization of the new School has been arrested for the want of adequate endowment, but a beginning in that direction will, it is hoped, be made during the next scholastic year.

In this new School it will be sought to carry the study of law into the realm of *jurisprudence*, strictly so called, and to provide a systematic course of *University* studies leading to the degree of Doctor of Philosophy in law. The juridical thought of the world will here be taught as a history and at the same time as a philosophy, ranging in its survey from the first rude germs of the clan stage of human government to the highest evolutions of juridical science, as seen in the Civil Law of Rome, the Common Law of England, and the growing body of International Law. The codes of particular nations and of successive stages in human culture will be passed in review only so far as they mark the successive stages of human progress along the line of civil institutions—after the manner of Freeman in his "Comparative Politics"—and along the line of legal in-

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stitutes after the manner of Sir Henry Sumner Maine, Scrutton, Maitland, Vinogradoff, and others. It is designed that scientific studies in comparative anthropology shall form the indispensable preliminary to the special inquiries and task work pursued in such a school of advanced studies in jurisprudence, so that the laws of the clan, of the tribe, of the village community, of the Greek city-state, of the Roman Empire, and of feudal Europe will be expounded in their proper logical sequence, as preparing the way for a philosophical study of the English Common Law, of American State and Federal jurisprudence, of International Law, of Law Reform and of Codification.

STUDENTS OF LAW.

Graduate Class in Practice.

Name.	Residence.
A. A. Adams, LL. B., Georgetown University, 1889. LL. M., Georgetown University, 1890.	Tennessee.
Perry Allen,	Massachusetts.
J. Walter Barber, LL. B., Columbia University, 1893.	Indiana.
Walter A. Bethel, Graduate U. S. Military Academy, 1889. B. L., Atlanta Law School, 1892.	Ohio.
J. C. Bowen, LL. B., Columbia University, 1893.	Michigan.
James W. Byler, LL. B., Columbia University, 1893.	Missouri.
U. Schuyler Caffett, LL. B., Columbia University, 1893.	Tennessee.
A. V. Cushman, LL. B., Columbia University, 1893.	Massachusetts.
George F. Daggott, LL. B., Columbia University, 1893.	Maine.
Frank E. Dennett, A. B., Bowdoin College, 1890. LL. B., Columbia University, 1893.	Maine.
Ross T. Downing, LL. B., Georgetown University, 1889. LL. M., Georgetown University, 1890.	District of Columbia.
George W. Drew, LL. B., Columbia University, 1893.	District of Columbia.

Name.	Residence.
W. C. Eldridge, LL.B., National University. LL.M., National University.	New York.
J. William Ellis, Ph. B., Cornell, 1890. LL.B., Columbian University, 1893.	New York.
F. De Courey Faust, LL.B., Columbian University, 1893.	District of Columbia.
James A. Finch, LL.B., Columbian University, 1893.	New York.
Albert F. Flint, LL.B., Columbian University, 1893.	District of Columbia.
Charles L. Frailey, A. B., Columbian University, 1891. LL.B., Columbian University, 1893.	Massachusetts.
Paul Trapier Gadsden, A. M., University of the South, 1891. LL.B., Columbian University, 1893.	South Carolina.
W. H. Gallinger, LL.B., Georgetown University, 1893.	New Hampshire.
Horace D. Goodale, LL.B., Columbian University, 1893.	New York.
Milton Le Roy Gough, LL.B., Columbian University, 1893.	District of Columbia.
William M. Hardecastle, LL.B., Columbian University, 1892.	Maryland.
William E. Harvey, LL.B., Columbian University, 1893.	Missouri.
Henry Hawzhurst, LL.B., Columbian University, 1892.	Virginia.
John B. Henderson, Jr., LL.B., Columbian University, 1893.	District of Columbia.
W. B. Hoggatt, LL.B., Columbian University, 1893.	District of Columbia.
Charles E. Howe, LL.B., Columbian University, 1893.	Pennsylvania.
Kepler Hoyt, A.B., University of Denver, 1891. LL.B., Columbian University, 1893.	Wyoming.
Malcolm Huffy, LL.B., Columbian University, 1893.	District of Columbia.

Name.	Residence.
A. L. Jackson. LL.B., Columbia University, 1893.	Texas.
Sydney R. Jacobs. LL.B., Columbia University, 1893.	Wisconsin.
J. Burr Johnson. LL.B., Columbia University, 1893.	Maryland.
Messmore Kendall, LL.B., Columbia University, 1893.	Colorado.
F. Henry Kiser, LL.B., Columbia University, 1893.	Wisconsin.
Conrad Krebs, LL.B., Georgetown University, 1892.	District of Columbia.
J. Arthur Lynham, LL.B., Columbia University, 1893.	Virginia.
J. T. Macey, LL.B., Columbia University, 1893.	New York.
Walker D. Maclean, A. B., Columbia University, 1891. LL.B., Columbia University, 1893.	Illinois.
M. A. Martinez, LL.B., Univ. of Lausanne, Switzerland, 1885.	Chile.
Lloyd T. Meeds,	District of Columbia.
George Clendenin Meigs, LL.B., Columbia University, 1893.	District of Columbia.
J. G. Meyers, Jr., LL.B., Columbia University, 1893.	District of Columbia.
Lawrence O. Murray, Graduate Metropolis Law School, N.Y. city. LL.B., Regents' University, N.Y. State, 1893.	New York.
Henry Newburgh,	California.
Fred. C. O'Connell, LL.B., Columbia University, 1893.	Vermont.
William A. Pless, LL.B., Columbia University, 1893.	Tennessee.
Howard S. Reeside, LL.B., Columbia University, 1893.	Pennsylvania.
E. S. Rockwell, LL.B., Columbia University, 1893.	New York.
Louis A. Rosafy, LL.B., Columbia University, 1893.	North Carolina.

Name.	Residence.
Morris E. Sabin. LL.B., Columbian University. 1893.	Wisconsin.
Fountain F. Sams. LL.B., Columbian University. 1893.	Illinois.
Abram Ralph Serven. A. B., Hamilton College. 1887. A. M., Hamilton College. 1890.	New York.
George H. Shields, Jr., A. B., Princeton. 1891. LL.B., Columbian University. 1893.	Missouri.
Carroll W. Smith. LL.B., Columbian University. 1893.	District of Columbia.
Felix O. Smith. LL.B., Columbian University. 1893.	Vermont.
Henry Gordon Strong. LL.B., Columbian University. 1890.	Wisconsin.
Bernard H. Taylor, LL.B., Columbian University. 1893.	Illinois.
Herbert J. Taylor, B. L., Washington and Lee University.	Virginia.
Frank Tharin. LL.B., Columbian University. 1893.	South Carolina.
Corcoran Thom. LL.B., Columbian University. 1893.	Maryland.
J. H. Thomas. LL.B., Columbian University. 1893.	Missouri.
Addison C. Townsend. LL.B., Columbian University. 1893.	Nebraska.
Ralph R. Upton, A. B., Yale University. 1892. LL.B., Columbian University. 1893.	District of Columbia.
Mark A. Watson. LL.B., Columbian University. 1893.	California.
Harry Weber. LL.B., Columbian University. 1893.	Illinois.
George Francis Williams, LL.M., Georgetown University. 1889.	District of Columbia.
A. L. Wood. LL.B., Columbian University. 1893.	New Jersey.

Name	Residence
Edward A. Wright, C. E., Lehigh University, 1889. LL.B., Columbian University, 1893.	Pennsylvania.
Fred. A. Wright, A. B., Amherst College, 1884. LL.B., Columbian University, 1893.	Massachusetts.
Herbert Wright, M. E., Lehigh University, 1890. LL.B., Columbian University, 1893.	Pennsylvania.

Graduate Students, 71

Seniors.

Name.	Residence.
Fred. Achenbach,	Missouri.
Edgar Allan, Jr.,	Virginia.
Perry Allen,	Massachusetts.
Charles C. Baldwin,	Florida.
Franklin E. Barrett,	District of Columbia.
William W. Bedford,	California.
Edwin S. Bethel,	Illinois.
W. R. Blackford, B. S., Columbian University, 1892.	District of Columbia.
S. Hazen Bond,	District of Columbia.
Joseph A. Burkart,	District of Columbia.
T. C. Catchings, Jr.,	Mississippi.
Paul Ripley Clark, A. B., Yale, 1892.	New York.
Malcolm Argyle Coles, A. B., Richmond College, 1888.	Virginia.
P. E. Cox,	Tennessee.
Percy S. Crowe,	Indiana.
Allen A. Davis, A. B., S. W. B. University, 1891.	Tennessee.
Murray M. Davis,	Virginia.
R. A. Davisson,	Illinois.
Fred. Dennett,	North Dakota.
Frederick W. Denniston,	Pennsylvania.
Harris Dickson,	Mississippi.

Name.	Residence.
Albert G. Dingley, A. B., Yale, 1892.	Maine.
Victor B. Dolliver, A. B., Cornell, 1889.	Iowa.
Frederic S. Doyle, C. W. Draper.	Pennsylvania. Montana.
J. Q. Eaton, A. B., Dartmouth College, 1893.	District of Columbia
J. W. Ellis,	Oregon.
Selden M. Ely, M. E., S. N. School, Indiana, Pa., 1888.	Virginia.
Paul Finckel,	District of Columbia.
Keith Forrest,	District of Columbia.
Seinosuké Fukuda,	Japan.
A. M. Fuller, Graduate U. S. Military Academy, 1876.	Pennsylvania.
Henry H. Glassie, A. B., Johns Hopkins University, 1892.	Tennessee.
O. W. Goodwin,	Wisconsin.
James McIlvaine Gray,	Nebraska.
Thomas Gresham,	North Carolina.
Harry C. Grove,	West Virginia.
H. M. Gunderson,	District of Columbia.
J. Fossett Hays, A. B., Wooster University, 1879.	Ohio.
Walter R. Hensey,	District of Columbia.
Charles J. Hepburn,	Pennsylvania.
A. H. Hiller, Ph. B., Hillsdale College, Mich., 1889. Ph. M., Hillsdale College, Mich., 1893.	Michigan.
Frank H. Hitchcock, A. B., Harvard, 1891.	Massachusetts.
Francis C. Huelmer,	Ohio.
Earle A. Humphrey,	North Carolina.
J. S. Jenkins,	Indian Territory.
Guy Hamilton Johnson,	District of Columbia.
T. C. Kelly,	Pennsylvania.
Thomas Kerl, A. B., University of Michigan, 1891.	District of Columbia.
Frank Kyselka,	Michigan.

Name.	Residence.
C. H. Lauchheimer. Graduate U. S. Naval Academy, 1881.	Maryland.
Edward T. Lee. A. B., Harvard, 1886.	Connecticut.
James Meriwether Lewis. Reeve Lewis. Harris Lindsley.	Virginia. District of Columbia. District of Columbia.
James Joseph McEvilly. Marvin M. McLean. B. L., University of Texas, 1890.	Montana. Texas.
John McPhaul. L. M. Marble. B. S., Cornell University, 1892.	Texas. District of Columbia.
E. B. Markham. Marcus B. May. William C. Mayo. George A. H. Mills. Edgar C. Molby. Franklin Moore. Gales P. Moore. L. D. Manigault Mowry. H. L. Muldrow, Jr. H. Beach Needham. Henry Newburgh. E. C. O'Brien. John O'Connell. James A. Oldfield. Lewis G. Olt. R. H. Orr. F. R. Parks. B. S., Columbian University, 1883.	District of Columbia. District of Columbia. Virginia. New York. Michigan. District of Columbia. District of Columbia. South Carolina. Mississippi. Illinois. California. District of Columbia. Wisconsin. West Virginia. Ohio. Delaware. District of Columbia.
Sterling Parks. A. B., University of Michigan, 1888. E. H. Parry. Isaac Pearson. LL.B., University of Michigan, 1883.	Ohio. Connecticut. South Dakota.
Seth V. Peck. U. G. Perry. John A. Robinson. Robert L. Russell. Graduate U. S. Naval Academy, 1885.	Iowa. Pennsylvania. Ohio. Georgia.

Name.	Residence.
Walter H. Ryland, A. B., Richmond College, 1891.	Virginia.
Harold N. Saxton.	New York.
John C. Scofield. A. B., Middleburg College.	Georgia.
Charles F. Sensner.	Virginia.
H. C. Sheridan.	District of Columbia.
Albert D. Spangler.	Pennsylvania.
Luther F. Speer.	Pennsylvania.
Arle W. Starck.	Arkansas.
Carl A. Starck.	Arkansas.
Robert A. Stickney.	Florida.
Clifford M. Stoy.	District of Columbia.
J. Walker Stuart.	South Carolina.
Harry C. Surguy.	Ohio.
Albert Vincent Taylor.	Ohio.
Seth Elliott Tracy.	Texas.
H. J. Van Der Beek.	New York.
E. W. Van Dyke.	District of Columbia.
John Chalmers Wilson.	Maryland.
Charles Hewitt Wright. A. B., Williams College, 1892.	Massachusetts.

Seniors.

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Juniors.

Name.	Residence.
R. T. Able.	South Carolina.
W. J. Acker.	District of Columbia.
Jos. Benjamin Adler.	New York.
Thomas A. Aiton.	District of Columbia.
Edwin W. Ashford.	District of Columbia.
M. D., Columbian University, 1890.	
Woolsey Aspinwall.	District of Columbia.
Brainard Avery.	Vermont.
Clinton T. Azpell.	Pennsylvania.
Orville E. B. Bailey.	Pennsylvania.
George Wilson Baker.	District of Columbia.
L. C. Baker.	Wyoming.
H. S. Barriek.	District of Columbia.

Name.	Residence.
Ralph Hutchinson Light, B. S., University of Pennsylvania, 1891.	District of Columbia.
Warren G. Light,	District of Columbia.
William H. Lopp,	District of Columbia.
Patrick H. Loughran,	District of Columbia.
Alexander D. Lunt, B. S., Worcester Polytechnic Institute, 1891. M. E., Cornell University, 1892. M. M. E., Cornell University, 1893.	New York.
Henry Hyde Lyon,	Kentucky.
Ormsby McCammon,	District of Columbia.
Joseph R. McCann,	Tennessee.
J. H. McGibbons, A. B., Chaddock College, Ill., 1887. A. M., Chaddock College, Ill., 1890.	Iowa.
C. K. Macey,	New York.
C. Carroll Martin,	District of Columbia.
J. A. Mathews,	Illinois.
John M. Maury,	Virginia.
Edgar H. May,	District of Columbia.
D. H. Mead,	District of Columbia.
J. N. Morris,	District of Columbia.
W. C. Morrison,	West Virginia.
Edwin A. Niess,	Pennsylvania.
George T. Nixon,	Illinois.
Francis Nye,	District of Columbia.
Henry Orth, Jr.,	District of Columbia.
Isaac B. Owens,	Maryland.
A. J. Pearson, Jr.,	Ohio.
W. D. Peck,	Kentucky.
P. K. Pennington,	Alabama.
Graham H. Powell,	New York.
Ralph C. Powell, A. B., Yale, 1892.	Ohio.
Jesse W. Rawlings,	District of Columbia.
J. B. Reynolds, A. B., Dartmouth College, 1890. A. M., Dartmouth College, 1893.	Massachusetts.
S. Joseph Ripps,	Texas.
W. P. Robinson,	West Virginia.

Name.	Residence.
Joseph K. Roberts,	Maryland.
William H. Sackett,	Nebraska.
A. Monell Sayre,	New York.
E. C. Schneider,	Illinois.
C. L. Shaver,	West Virginia.
E. D. Sherburne,	New Hampshire.
A. B., Dartmouth College, 1890.	
John B. Sleman, Jr.,	District of Columbia.
Addison T. Smith,	Ohio.
F. M. Smith,	West Virginia.
Frank Hubert Stewart,	Massachusetts.
A. B., Harvard University, 1892.	
Richmond Stone,	New York.
A. B., Harvard University, 1893.	
James Struthers,	District of Columbia.
Fred. G. Stutz,	District of Columbia.
W. L. Symons,	Ohio.
Thomas G. Talbert,	South Carolina.
Boyd Taylor,	District of Columbia.
C. R. Taylor,	Virginia.
J. Ford Thompson, Jr.,	District of Columbia.
Mowen Thompson,	District of Columbia.
Howe Totten,	District of Columbia.
A. B., Harvard University, 1893.	
Matthew Trimble, Jr.,	District of Columbia.
W. J. Turner,	Virginia.
F. R. Tyler,	Virginia.
Guy Underwood,	Ohio.
John G. Urquhart,	Virginia.
H. G. Van Evern,	New York.
M. E., Cornell University, 1891.	
Forrest F. Vrooman,	Virginia.
P. G. Wallmo,	Connecticut.
B. H. Warner, Jr.,	District of Columbia.
George A. Warren,	District of Columbia.
Thomas Washington,	District of Columbia.
H. C. Waterbury,	Illinois.
Charles G. Watson,	Connecticut.
W. W. Wernitz,	Massachusetts.
Horace H. Westcott,	District of Columbia.

Name	Residence.
W. H. White,	Missouri.
E. W. Williams,	New York.
Frank William, Jr.,	Virginia.
W. H. Williams, Jr.,	North Carolina.
D. E. Wilson,	District of Columbia.
A. B., Western Maryland College, 1893.	
Edward C. Wilson,	Canada.
B. S., Swarthmore College, 1891.	
Harvey T. Wingfield,	District of Columbia.
Mendum Wood,	District of Columbia.
Robert H. Young,	District of Columbia.
Juniors,	153.

Recapitulation.

Graduates,	71
Seniors,	102
Juniors,	155
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THE MEDICAL SCHOOL.

The Faculty.

JAMES C. WELLING, LL.D.,
President.

N. S. LINCOLN, M. D.,
Emeritus Professor of Surgery.

J. FORD THOMPSON, M. D.,
Professor of Surgery.

W. W. JOHNSTON, M. D.,
Professor of the Theory and Practice of Medicine.

A. F. A. KING, A. M., M. D.,
Professor of Obstetrics and the Diseases of Women and Children, and
Dean of the Faculty.

D. W. PRENTISS, A. M., M. D.,
Professor of Materia Medica and Therapeutics.

D. KERFOOT SHUTE, A. B., M. D.,
Professor of Anatomy.

EMIL A. DE SCHWEINITZ, A. M., Ph. D.,
Professor of Chemistry and Toxicology.

WILLIAM P. CARR, M. D.,
Professor of Physiology.

WM. M. GRAY, M. D.,
Professor of Normal and Pathological Histology.

H. C. YARROW, M. D.,
Professor of Dermatology.

GEORGE BYRD HARRISON, M. D.,
Professor of Paediatrics.

COLUMBIAN UNIVERSITY

H. L. E. JOHNSON, M. D.,
Professor of Gynecology.

THOMAS E. McARDLE, A. M., M. D.,
Professor of Minor Surgery.

THEOBALD SMITH, M. D.,
Professor of Bacteriology and Hygiene.

WILLIAM K. BUTLER, M. D.,
Professor of Ophthalmology.

STERLING RUFFIN, M. D.,
Professor of Medical Jurisprudence.

CHARLES W. RICHARDSON, M. D.,
Professor of Laryngology and Otology.

A. CLARK PATTERSON, M. D.,
Professor of Mental Diseases.

EDMUND L. TOMPKINS, M. D.,
Professor of Nervous Diseases.

Clinical Professors.

J. FORD THOMPSON, M. D.,
Clinical Professor of Surgery.

WILLIAM W. JOHNSTON, M. D.,
Clinical Professor of Medicine.

GEORGE N. ACKER, M. D.,
Clinical Professor of Medicine.

H. L. E. JOHNSON, M. D.,
Clinical Professor of Diseases of Women.

SAMUEL S. ADAMS, M. D.,
Clinical Professor of Diseases of Children.

WILLIAM K. BUTLER, M. D.,
Clinical Professor of Ophthalmology.

CHARLES W. RICHARDSON, M. D.,
Clinical Professor of Laryngology and Otology.

EDMUND L. TOMPKINS, M. D.,
Clinical Professor of Diseases of the Nervous System.

GEORGE BYRD HARRISON, M. D.,
Clinical Professor of General Medical Diseases.

Demonstrators.

STERLING RUFFIN, M. D.,
Demonstrator of Anatomy.

VERANUS A. MOORE, B. S., M. D.,
Demonstrator of Pathological Histology.

PHILIP JAISOHN, M. D.,
Demonstrator of Normal Histology.

GLENDIE B. YOUNG, M. D.,
JOHN VAN RENSSELAER, M. D.,
WILLIAM F. R. PHILLIPS, M. D.,
LOUIS MACKALL, JR., M. D.,
JOHN R. WELLINGTON, M. D.,
WILLIAM S. GOODALL, M. D.,
THEODORE W. RICHARDS, M. D.,
Assistant Demonstrators of Anatomy.

JAMES R. CHURCH, M. D.,
ISAAC W. BREWER, M. D.,
Prosectors of the Chair of Anatomy.

JOHN VAN RENSSELAER, M. D.,
JOHN R. WELLINGTON, M. D.,
Demonstrators of Minor Surgery.

FRANCIS R. HAGNER, M. D.,
IRVING W. RAND, M. D.,
MIDDLETON S. ELLIOTT, M. D.,
Clinical Assistants.

A. F. A. KING, M. D., DEAN,
1315 Massachusetts Avenue N. W., Washington, D. C.

MEDICAL DEPARTMENT.**Annual Announcement of the Session of 1894-'95.**

The Seventy-third Course of Lectures begins on Monday, October 1, 1894, and continues seven months.

The Introductory Lecture of the Course will be delivered by Prof. EMIL A. DE SCHWEINITZ on the 1st of October, and the regular Lectures will continue throughout the session, beginning at 5.30 p. m. of each week day.

The system of instruction adopted by the Medical Department of this University includes a general course of lectures on each of the seven essential branches of medical science, namely, Anatomy, Physiology, Chemistry, Materia Medica and Therapeutics, Surgery, Obstetrics, and the Theory and Practice of Medicine. Special courses are also given upon diseases of particular organs, such as the eye, ear, throat, etc., combined with clinical instruction in the various hospitals and dispensaries of the city. In these clinics the student is made familiar with the methods of examining patients, analyzing symptoms, making a diagnosis and prognosis of the cases, and recording medical histories. He is also taught to prescribe medicines and observe their effects, and to perform surgical operations.

GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.**Surgery.**

PROFESSOR J. FORD THOMPSON, M. D.,

One of the Attending Surgeons to the Children's Hospital and to the Garfield General Hospital.

The course will embrace Didactic Lectures upon the Principles and Practice of Surgery, and, as far as practicable, Clinical Instruction at the College.

Professor THOMPSON being the attending Surgeon of both the Children's Hospital and the Garfield Hospital, students are offered the opportunity for Clinical Instruction in these Institutions.

Every effort will be made to teach Surgery in accordance with the latest developments of scientific research. At the College operations will be performed upon the cadaver, and the use of all important surgical instruments and appliances will be demonstrated in the same manner.

MINOR SURGERY.—Practical class instruction will be given by Professors MCARDLE and VAN RENSSELAER in the application of splints, dressings, etc., for the various surgical diseases and injuries.

Theory and Practice of Medicine.

PROFESSOR W. W. JOHNSTON, M. D.,

One of the Consulting Physicians to the Children's Hospital, to the Garfield Hospital, and to the Central Dispensary and Emergency Hospital.

The Course of Lectures on the Theory and Practice of Medicine begins with the consideration of the pathological anatomy and symptomatology of the general morbid processes which occur in many diseases and to which all the structures of the body are liable. General or constitutional diseases and local diseases or diseases of organs are described in order.

As the subjects taught from the Chair are so numerous and cover so wide a field, two years are required to complete the course. The lectures of each year therefore form a distinct and complete series, and it is necessary for the student to follow attentively the Lectures during two successive years in order to finish his studies in this branch.

The courses on Histology and Pathological Histology cannot be neglected without serious detriment to progress, and are absolutely necessary to a complete understanding of the studies of this Chair. They are considered obligatory studies.

The hospitals and dispensaries of the city afford abundant opportunity for the observation of disease, and no chance should be lost to gain a practical knowledge of the methods of examining cases and of the art of diagnosis. The student should also make an effort to study morbid anatomy by witnessing as many autopsies as is possible, for in this way only can he acquire definite and clear ideas of the appearance of morbid tissues.

Obstetrics and the Diseases of Women and Children.

PROFESSOR A. F. A. KING, A. M., M. D.,

One of the Consulting Physicians to the Children's Hospital and Obstetrician to the Columbia Hospital for Women

This course will comprise a series of Lectures on the Science and Practice of Midwifery, together with additional Lectures on Gynecology. The main purpose of the Lecturer will be to explain, impress, and simplify the matters to be studied in the books, so as to render them more easily intelligible, and hence more pleasing and satisfactory to the student. With this view the Lectures will be illustrated by diagrams, models, natural preparations, manikins, and instruments.

Mathieu's new elastic manikin for demonstrating obstetrical operations has been added to the illustrative apparatus.

In the Department of Gynecology the various instruments and appliances required in treating the Diseases of Women will be exhibited and their uses fully explained.

Chemistry and Toxicology.

PROFESSOR EMIL A. DE SCHWEINITZ, A. M., PH. D.

The instruction of this Department embraces :

1st. A short discussion of the various branches of Physics, as Specific Gravity, Pneumatics, Heat, Light, Electricity, etc., so far as they relate to the Science of Chemistry.

2d. The principles of chemical philosophy, the laws of chemical combinations, and of chemical affinity in general.

3d. A discussion of the elementary bodies, both metallic and non-metallic; the best methods of preparing the various inorganic bodies, their properties and reactions, and the means of detecting their presence.

4th. The so-called "organic bodies" will be considered as far as time will permit, especially those most useful to the physician, such as organic acids and their salts, the alkaloids, etc.

Throughout the entire Course the application of Chemistry to Medicine and Pharmacy will be constantly brought before the student.

Special attention is given to toxicology. The various poisons are studied, so far as the tests for their presence and appropriate antidotes are concerned.

The principles of the science are abundantly illustrated by experiments.

Physiology.

PROFESSOR WILLIAM P. CARR, M. D.

Every effort will be made to teach this subject in a scientific manner. The ground will be fully covered by a two years' course of lectures, and these lectures so illustrated by modern diagrams, models, and experiments as to make them perfectly clear in every detail. Especial pains will be taken to emphasize those truths that have a known practical value.

Materia Medica and Therapeutics.

PROFESSOR D. W. PRENTISS, A. M., M. D.,

One of the Consulting Physicians to the Children's Hospital and to the Central Dispensary and Emergency Hospital.

In the course of instruction pertaining to this Chair especial prominence will be given to the physiological action of medicines and their therapeutic uses.

The value of a knowledge of Pharmacy and of the Natural History and Chemical relations of the Materia Medica is not overlooked, but time does not admit of their being considered in great detail in the lecture-room. They are rather proper subjects for recess study.

The art of prescribing will have a place in the consideration of individual drugs, particularly with reference to appropriate combinations, much of the success of the practitioner depending upon the practical application of his knowledge in the sick-room.

It will be the endeavor of Professor PRENTISS to make his instruction as practical as possible. The lectures will be supplemented by working prescriptions and blackboard illustrations, as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

Anatomy.

PROFESSOR D. KERFOOT SHUTE, A. B., M. D.,

Ophthalmic Surgeon to the Washington Hospital for Foundlings.

This course of Lectures is arranged with the view of rendering the didactic instructions in Anatomy as full and complete as the limits of the session will allow.

Sufficient knowledge of the anatomical structure of the human body to qualify one for the practice of medicine may be acquired during the two courses of Lectures from the Chair which each student attends, if at the same time he do his duty in the dissecting-room.

The Lectures will be illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciopicon will also be employed constantly to present photographic views of many regions of the body.

Special attention will be given during the course to the Surgical and Medical Relations of human anatomy, which are of so great importance in the practice of the Medical Profession.

Public oral examinations are conducted by the Lecturer from time to time.

Drs. JAMES R. CHURCH and ISAAC W. BREWER, Prosectors to the Chair of Anatomy, will prepare the subject for the Lecturer.

Dr. STERLING RUFFIN, Demonstrator of Anatomy, and his Assistants, Drs. YOUNG, VAN RENSSELAER, GOODALL, MACKALL, WELLINGTON, PHILLIPS, and RICHARDS, give their personal attention to the students in the dissecting-room.

PRACTICAL ANATOMY.—The dissecting-room of this College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied at a moderate price, sufficient only to cover the expense of procuring and preparing it. The room is open both during the

day and night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the immediate direction of the Demonstrator of Anatomy, who is present *at stated hours* to give personal attention to the students and properly instruct them in their dissections. In the absence of the Demonstrator one of his assistants will be present to instruct the classes.

Lectures on Special Subjects.

DERMATOLOGY.—Professor YARROW will give a course of lectures on this branch, illustrated by diagrams, models, and the exhibition of cases.

PEDIATRICS.—Professor HARRISON will lecture upon diseases of infants and children and the importance of their proper management by diet and hygiene.

GYNECOLOGY.—The diseases peculiar to women will be given special attention by Professor H. L. E. JOHNSON, in charge of the department of gynecology, Central Dispensary and Emergency Hospital, who will illustrate this course by clinical demonstrations at the Hospital.

MINOR SURGERY.—This course will consist of practical instruction under the direction of Professor McARDLE, assistant physician Children's Hospital, and his assistants. The students will apply the various splints, bandages, surgical dressings, etc., for themselves.

BACTERIOLOGY.—No part of medical study is of more scientific importance and interest than this, which deals with the etiology of so many pathological processes. It will be taught by Professor THEOBOLD SMITH.

OPHTHALMOLOGY.—Professor BUTLER will give a didactic course on this subject, together with clinical instruction at the Lutheran Eye and Ear Infirmary.

MEDICAL JURISPRUDENCE.—Professor RUFFIN's course will deal with the relations of physicians to matters of legal investigation, and the students will be taught how to give expert testimony and how to conduct themselves as witnesses.

LARYNGOLOGY AND OTOTOLOGY.—This course will comprise lectures on diseases of the nasal passages, pharynx, and larynx, and also of the ear. Professor RICHARDSON, laryngologist to the Providence Hospital, will give practical instruction in the use of the laryngoscope and other instruments required in this special branch.

MENTAL DISEASES.—Professor PATTERSON, one of the resident physicians at the Government Hospital for the Insane, will deal with the subject of insanity in its varied forms. Clinical instruction will also be given at the hospital.

HYGIENE.—The importance of hygienic conditions in the treatment and prevention of disease will be fully considered in this course. The purity of water, air, foods, etc., and the methods by which these are determined will receive particular attention.

NERVOUS DISEASES.—Dr. E. L. TOMPEKINS, resident physician of Dr. Wm. A. Hammond's Hospital for Nervous Diseases, and in charge of the Department of Nervous Diseases at the Central Dispensary and Emergency Hospital, will lecture upon the more common and important of these affections.

HISTOLOGY AND PATHOLOGICAL HISTOLOGY.—Practical laboratory instruction will be given on these subjects:

Dr. WM. M. GRAY will conduct a course of practical instruction in Normal Histology and Pathological Histology. In this course students will have the opportunity to become familiar with the use of the microscope, and with the minute anatomy of the tissues and organs of the body, both in health and disease.

The course in Normal Histology is open to students during the first and second years of their tuition, and the course in Pathological Histology to third and fourth year students only. Both these courses constitute a necessary part of college work, and attendance upon them is not optional with the student, but obligatory.

Laboratory Instruction.

New Laboratories have been recently provided for practical instruction in Bacteriology, Normal and Pathological Histology, and Chemistry.

The student will specially be instructed in the Technique of Microscopical work, such as hardening specimens, cutting sections with the Microtome, staining sections, and making permanent mountings. He will be taught to recognize the appearances of Normal and Pathological sections.

He will be instructed in the methods of culture of Bacteria, method of staining them, etc.

Practical instruction in Urine Analysis and Toxicology will be given in the new laboratory.

The Bandaging Rooms, for instruction in Minor Surgery, have been supplied with four new manikins, recently imported for this purpose.

Clinical Instruction.

Attendance upon Clinical Instruction in Medicine and Surgery, during at least two years, is required, and when the student presents himself for examination a certificate to this effect must be furnished.

GARFIELD HOSPITAL.—Clinical lectures will be given regularly during the session by Professor J. FORD THOMPSON on Surgery, and by Professor G. N. ACKER on Medicine. A great variety of medical and surgical diseases is to be seen in this institution, affording abundant material for clinical diagnosis and operative surgery.

CHILDREN'S HOSPITAL.—A weekly course of Medical and Surgical Clinics will be given by Professors W. W. JOHNSTON, J. FORD THOMPSON, and S. S. ADAMS. An opportunity is here afforded of observing and the medical and surgical diseases, injuries, etc., to which children are liable. The dispensary service of the hospital is very large and instructive.

CENTRAL DISPENSARY AND EMERGENCY HOSPITAL.—Professors G. B. HARRISON, in charge of the department of general medicine, and E. L. TOMPKINS, in charge of nervous diseases, and H. L. E. JOHNSON, in charge of the department of diseases of women, will conduct courses of instruction in their respective branches.

PROVIDENCE HOSPITAL.—Clinical instruction, both medical and surgical, is given by the staff of this institution.

LUTHERAN EYE AND EAR INFIRMARY.—The diseases of the eye and ear in this hospital will be exhibited during the clinics of Professor BUTLER.

Requirements for Matriculation and Graduation.

I. Matriculants will be required to show that they are fitted, by previous education, for the study of medicine, and for this purpose they must either submit themselves to an examination or, in lieu thereof, present a satisfactory certificate of their attainments from some college.

Should an examination be necessary it will comprise the following subjects:

1. English composition.
2. Translation of easy Latin prose.
3. Elements of Algebra or Higher Arithmetic.
4. Elementary Physics.

Students conditioned or unable to undergo the examination in Latin or in Elementary Physics may obtain instruction on these subjects during the Freshman year, and on passing a satisfactory examination before the beginning of the second year will be admitted to matriculation.

Students desiring instruction in Latin, Physics, etc., may obtain it from Dr. O. A. M. McKIMMIE, 1333 N street N. W., to whom they are referred for particulars as to the arrangement of time, fees, etc.

II. Candidates for the degree of Doctor of Medicine must have attended four courses of lectures, the subjects to be arranged as follows:

FIRST YEAR.—Anatomy, Physiology, Chemistry, Materia Medica, Minor Surgery, Bacteriology, Histology, and Practical Anatomy. Examination at the end of the year upon the above-named subjects.

SECOND YEAR.—Anatomy, Physiology, Chemistry, Materia Medica, and Therapeutics, Hygiene, Otology, Laryngology, Histology, Clinics, and Practical Anatomy. Examination at the end of this year upon the above-named subjects.

THIRD YEAR.—Surgery, Medicine, Obstetrics, Gynecology, Dermatology, Ophthalmology, Pathological Histology, Clinical Medicine, and Surgery. Examination on the above-named subjects at the end of the year.

FOURTH YEAR.—Surgery, Medicine, Obstetrics, Mental Diseases, Medical Jurisprudence, Nervous Diseases, Pediatrics, Pathological Histology, Clinical Medicine, Surgery, etc. Final examination at the close of the fourth year upon the above-named subjects.

III. Students of other Institutions who have attended one course of lectures in any regular Medical School will be placed upon the same footing with those who have attended one course in this College, and those who have attended two (or three) courses of lectures in any other regular College or Colleges will rank with those who have attended two (or three) courses in this Institution, and the same privileges as regards examination will be extended to them—that is to say, they will be admitted respectively as second, third, or fourth year students after passing a satisfactory examination upon the subjects required of our own students during the first, second, and third years, as previously described. (See p. 34.)

IV. Candidates for graduation must have studied medicine four years. They must be of good moral character and at least twenty-one years of age.

V. The candidate must have practised dissection at least two sessions, during each of which he shall be required to dissect two "parts" of a

subject, and it is recommended that he dissect three parts. He must have attended also two courses of clinical instruction.

VI. One month before the close of the session he shall enter his name with the Dean of the Faculty as a candidate for graduation, and at the end of the term present himself for examination. The examination will be both written and oral. The examinations for the degree will be held at the end of the session in April. Students who fail to pass the examination in April may be re-examined in October if, in the judgment of the Faculty, they have shown the proficiency requisite to render such a course advisable. The diploma is granted only at the Annual Commencement in May.

VII. Graduates of other accredited Medical Colleges must pass a satisfactory examination on all of the seven essential branches of medicine before receiving a diploma from this University.

Prizes.

At the end of the term a General Examination Prize of *fifty dollars* will be awarded. It will be given to the candidate for graduation who shall pass the best general examination.

The Faculty will also award two additional prizes—one for proficiency in "*Clinical Medicine*," and one for proficiency in "*Clinical Surgery*."

At the Commencement in May, 1893, the General Examination Prize was awarded to WILLIAM C. BUCK, of New Hampshire, honorable mention being made of THEODORE W. RICHARDS, of District of Columbia; DEANE C. HOWARD, of Massachusetts, and EDWARD S. SEIBERT, of Pennsylvania.

The Clinical Medicine Prize was awarded to GEORGE W. LEADLEY, of New York, honorable mention being made of MARGARET M. YORK, of Louisiana; JAMES R. CHURCH, of District of Columbia, and EDWARD G. SEIBERT, of Pennsylvania.

The Clinical Surgery Prize was awarded to VAN BUREN KNOTT, of Iowa.

Libraries, Army Medical Museum, etc.

The location of the University at the seat of the National Capital affords several striking advantages to the medical student. He has free access to the Libraries of Congress, of the Army Medical Museum, of the Smithsonian Institution, and of the Patent Office, all of which contain rare and costly works in every department of science and literature. The Army Medical Museum is also open for inspection daily from 9 to 3 o'clock. With its unrivaled collection of anatomical and pathological specimens,

illustrating normal anatomy and the results of disease in every form, and an almost unlimited number of other preparations showing the effect of gunshot wounds and surgical injuries of every kind, this Museum presents a field for study superior to any other institution of the kind, either in this country or Europe.

Apart from these considerations, students from a distance have the opportunity of spending a winter profitably at the seat of the National Government during the sessions of Congress. The College lectures beginning at 5.30 in the evening, ample time is afforded during the term for visiting the public buildings, works of art, and other places of interest to a stranger. Prominent among these may be mentioned the new National Museum, established in connection with the Smithsonian Institution. Here may be seen fully classified collections illustrating the arts and industries of the country; and, of special interest to the medical student, there is found in this Museum the most complete and best arranged collection of *Materia Medica* in the world. The drugs are shown in all their processes of manufacture, from the original package in which they are imported or marketed to the delicate alkaloid constituting the active principle.

Of great interest, also, are the Government Botanical Gardens and the grounds of the Agricultural Department, where the student of botany may find a rare collection of medicinal plants, from which are derived many of the preparations of the *Materia Medica*.

At the United States Patent Office models of many curious medical and surgical instruments may be daily inspected from 9 to 3 o'clock, thus affording to the student an opportunity of studying the mechanical contrivances used in Medicine, Surgery, and Obstetrics, that is not to be obtained in any other city.

Fees, Regulations, etc.

Matriculation Fee, payable only once.....	\$5 00
Single Tickets.....	20 00
Practical Anatomy, by the Demonstrator.....	10 00
Full Course, first year.....	75 00
Full Course, second year.....	75 00
Full Course, third year.....	75 00
Full Course, fourth year.....	75 00

This annual fee of seventy-five dollars does *not* include the ticket of the Demonstrator of Anatomy, nor any fee for Laboratory work, but *does* include all examination fees and clinical instruction.

Students who matriculated during or before the session of 1892-'93, prior to the adoption of the four-year plan, will be charged in conformity with the old regulations, as follows:

FIRST COURSE:	
Matriculation Fee.....	\$5 00
Four Primary Tickets.....	60 00
Practical Anatomy, by the Demonstrator.....	10 00
Total.....	\$75 00
SECOND COURSE:	
Four Primary Tickets.....	\$60 00
Three Final Tickets.....	15 00
Practical Anatomy, by the Demonstrator.....	10 00
Examination Fee Primary Branches.....	20 00
Total.....	\$135 00
THIRD COURSE:	
Three Final Tickets.....	\$45 00
Examination Fee Final Branches.....	10 00
Total.....	\$55 00

The expense for Laboratory tickets to *all* students for Chemistry, Normal Histology, Bacteriology, and Pathological Histology will be five dollars for *each branch*—total, \$20.

Payment of the fees is required in all cases, and tickets must be taken out at the commencement of the session, *unless special arrangement be made with the Dean to suit the convenience of the student.*

By virtue of a liberal endowment from the late Mr. W. W. Cogswell this College is enabled to offer six Free Scholarships, which are under the supervision of the Columbian University. Applicants for the privileges of this endowment must produce a certificate from the authorities of the University that they have been fitted by previous education for the study of medicine. Applications should be addressed to the Dean* and sent in not later than the end of September, accompanied with written evidence of pecuniary inability and certificates of moral character and industry. This is the only mode by which any deduction can be made from the regular fees, except as hereinafter stated.

Graduates of other accredited Medical Colleges, after five years, are

* Who, on request, will forward blanks to be filled up by the applicant.

required to matriculate only. Prior to the expiration of five years the fee for a general ticket is \$75.

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States of America.

The prices of board range from \$12 to \$30 per month, and rooms may be obtained for \$10 and upward per month, according to location, etc.

The College Building is situated opposite a Government reservation, at No. 1325 H St. N. W., and is within half a square of three lines of street cars going to every part of the city.

Students desiring further information are requested to address the Dean of the Faculty.

A. F. A. KING, M. D., DEAN,

1315 Massachusetts Avenue N. W., Washington, D. C.

Telephone, 885.

Text Books and Works of Reference.

ANATOMY.—*Gray's*,* *Morris'*, or *Quain's Anatomy*; *Holden's Manual of Dissection*.

PHYSIOLOGY.—*Flinn's Physiology*, or *Foster and Langley's Practical Physiology*; *Yeo's Physiology*.

CHEMISTRY.—*Barker's*, *Attfield's*, *Bloxam's*, or *Fowne's Chemistry*, *Bowman's Medical Chemistry*, *Witthaus' Chemistry*, and *Remsen's Organic Chemistry*.

MATERIA MEDICA.—*H. C. Wood's Therapeutics*, *National Dispensatory*, *Edes' Therapeutics*.

SURGERY.—*Ashurst's*, *Gross' System of Surgery*, *Erichsen's* or *Druitt's Surgery*.

PRACTICE OF MEDICINE.—*Loomis' Practice*, *Osler's Practice*, *Strümpell's Text Book of Medicine*; *System of Medicine (Pepper)*, *Da Costa's Medical Diagnosis*; *Vinordt's Medical Diagnosis*.

OBSTETRICS.—*Ploufair's*, *Leishman's*, or *Lusk's Obstetrics*, *King's Manual Thomas and Mundé on Diseases of Women*, *J. Lewis Smith*, or *W. H. Day*, or *Meigs and Pepper on Diseases of Children*, and *Skene on Diseases of the Female Bladder and Urethra*.

PATHOLOGICAL ANATOMY AND HISTOLOGY.—*Green's Pathology*, *Frey's* or *Stricker's Histology*, *Rindfleisch's Pathological Histology*, *Cornil and Ranvier*, *Ziegler's Pathological Anatomy*, *Delafield and Prudden's Pathological Anatomy*.

Gould's Medical Dictionary, *Thomas' Medical Dictionary*.

*The works first named and in italics are preferred.

Students of Medicine.

Name	Residence.
May D. Baker,	Kansas.
Grafton Tyler Baldwin,	District of Columbia.
Frank A. Barbour,	District of Columbia.
Walter K. Beatty,	District of Columbia.
Joseph L. Belfler,	District of Columbia.
John W. Bennett,	District of Columbia.
John H. Berry,	District of Columbia.
Winfred E. Berry,	Maryland.
Archie W. Boswell,	District of Columbia.
Fannie C. Brewer,	Maryland.
Mary A. Brosius,	Pennsylvania.
William T. Burch,	District of Columbia.
Edgar C. Campbell,	District of Columbia.
Dewitt C. Chadwick,	Ohio.
Edward J. Collins, M. D.,	Minnesota.
Edgar E. Conant,	Maine.
Ralph D. Converse,	New Hampshire.
Henry K. Craig,	Maine.
John M. Cunningham,	Illinois.
George R. Currier,	Maine.
Joel Curry,	Georgia.
John Dale,	Pennsylvania.
Edward Y. Davidson,	Virginia.
William E. Davis,	Maryland.
Joseph C. Davison,	New Jersey.
Henry J. Decker,	New York.
Harry M. Dixon,	Mississippi.
William H. Dobson,	Pennsylvania.
Wm. C. Downey, Phar. G.,	District of Columbia.
George B. Driesbock,	Wisconsin.
Jerry S. Driver,	District of Columbia.
Walter C. Duff,	Maryland.
James D. Eggleston,	New Jersey.
Middleton S. Elliott,	South Carolina.
Rudolph H. v. Ezdorf,	Pennsylvania.
James M. Fairly,	Mississippi.
Warren Dexter Fales,	Illinois.
Stanley W. Finch,	New York.
Fred. O. Fish, A. B.,	Maine.

Name.	Residence.
Henry Z. Fish,	Kansas.
Charles L. Fisher,	Virginia.
Gaillard S. Fitzsimons.	South Carolina.
Joseph Herbert Ford, B. S.,	District of Columbia.
W. Ashby Frankland,	Virginia.
Eugene S. Geery.	District of Columbia.
Orange C. Gilliland,	Illinois.
Luther M. Gotwald,	District of Columbia.
Howard H. Graham,	Ohio.
Thomas A. Griffin.	Virginia.
Alfred G. Grunwell,	District of Columbia.
John W. Gue,	Illinois.
Oscar J. Gwynn.	Colorado.
Jonathan R. Hagan, D. D. S.,	Virginia.
Joseph K. Hagmann,	District of Columbia.
Francis R. Hagner.	District of Columbia.
James R. Hamilton.	Texas.
Bernard L. Hardin, B. S.,	Virginia.
Ralph A. Harding,	District of Columbia.
Frederick McG. Hartsock,	District of Columbia.
William E. Hertford,	District of Columbia.
William R. B. Holland,	West Virginia.
Abram B. Hooe.	Virginia.
Charles J. Hopkins,	District of Columbia.
C. Norman Howard,	Pennsylvania.
Montgomery Hunter,	Virginia.
Joe E. Hurst,	Canada.
Paul C. Hutton,	North Carolina.
Virgil B. Jackson,	Virginia.
Charles James.	District of Columbia.
Charles R. Johnson,	Delaware.
Joseph Russell Johnson,	Virginia.
Sidney L. Johnson,	District of Columbia.
Valentine M. Johnson, Jr.,	Virginia.
John E. Jones,	Ohio.
Llewellyn Jordon, LL.B.,	Mississippi.
George F. Juenemann,	District of Columbia.
Carolyn I. Keife.	Massachusetts.
Ulysses S. G. Keller,	Pennsylvania.
William A. Kinnan.	Michigan.

Name.	Residence.
Frank A. Kirby,	Massachusetts.
Alice K. Koogle, B. S.,	Ohio.
Hanson T. A. Lennon,	District of Columbia.
Eugene L. Le Merle,	District of Columbia.
Victor A. Lewis,	Maryland.
Matthew O'R. Loveaire,	District of Columbia.
Kate E. Lozier,	Connecticut.
L. Fleet Luckett,	District of Columbia.
Robert L. Lynch, Ph. D.,	Indiana.
William L. Masterson,	Ohio.
William W. Matthews,	Louisiana.
Sherman D. Maynard, B. S.,	New York.
Frank A. Mazzei,	District of Columbia.
Donald McDonald,	District of Columbia.
James S. McIlhenny,	District of Columbia.
George N. McLoughlin,	Tennessee.
Eaton K. McNeil,	Tennessee.
Frank O. McNew,	Tennessee.
Homer S. Medford,	District of Columbia.
Edwin R. Mills,	Virginia.
William P. Mills, A. B.,	Maryland.
John W. Morgan,	District of Columbia.
Robert L. Morgan,	Pennsylvania.
William H. Muckleston,	New Jersey.
Alexander Murray,	Virginia.
William S. Newell,	Indiana.
James B. Newton, Ph. G.,	New Jersey.
William K. Olds,	Michigan.
John N. Oliver, Jr.,	District of Columbia.
Harry Parsons,	New York.
Josie Craig Parsons,	Illinois.
Rolla D. Pope, B. S.,	Illinois.
Herbert W. Porter,	Connecticut.
Margaret S. Potter,	Pennsylvania.
George T. Prewitt,	Texas.
Woodbury Pulsifer, A. M.,	Maine.
Tunis C. Quick,	Virginia.
David E. Quinn, Ph. G.,	Ohio.
Arthur C. Rautenberg,	District of Columbia.
Fred. A. Read,	New Hampshire.

Name	Residence.
Joseph O. Reed,	Massachusetts.
Delos N. Reeve,	Iowa.
John L. Reid, D. D. S.,	District of Columbia.
Victor B. Rench,	Maryland.
Edward E. Richardson,	Vermont.
James M. Salmon, B. A.,	Pennsylvania.
William N. Sayre LL. M.,	Oregon.
Henry H. Seltzer,	Pennsylvania.
Thomas M. Shepherd,	District of Columbia.
William E. Sims,	South Carolina.
Percy G. Smith, Ph. G.,	Maryland.
Homer L. Spaulding,	Kansas.
Lemuel J. Stanton,	Iowa.
Mary C. Stanton,	Iowa.
John W. Stearns,	District of Columbia.
John Hamilton Stone, A. B.,	District of Columbia.
Daniel B. Street,	District of Columbia.
Milo H. Sutliff,	Utah.
Elisha Theall,	New York.
Joseph Lawn Thompson,	Maryland.
James R. Tubman,	District of Columbia.
William A. Tyler,	Nebraska.
Denny S. Verdi,	District of Columbia.
William S. Washburn,	New York.
Richard Washington,	District of Columbia.
Gottlieb Wehrle, B. S.,	Wisconsin.
Gustavus E. Werber, A. B.,	South Carolina.
William O. Wetmore,	New York.
William E. Whitson,	District of Columbia.
Thomas A. Whittington,	Nebraska.
Edwin P. Wolfe,	Iowa.

Total

150

THE DENTAL SCHOOL.

The Faculty.

JAMES C. WELLING, LL.D.,
President.

J. HALL LEWIS, D. D. S.,
Professor of Dental Prosthetics.

HENRY C. THOMPSON, D. D. S.,
Professor of Operative Dentistry.

W. D. PRENTISS, A. M., M. D.,
Professor of Materia Medica and Therapeutics.

D. KERFOOT SHUTE, A. B., M. D.,
Professor of Anatomy.

E. A. DE SCHWEINITZ, PH. D.,
Professor of Chemistry.

WILLIAM P. CARR, M. D.,
Professor of Physiology.

STERLING RUFFIN, M. D.,
Demonstrator of Anatomy.

J. R. HAGAN, D. D. S.,
Demonstrator in Charge of Infirmary.

SIGEL ROUSH, A. M., M. D., D. D. S.,
WM. L. CLARK, D. D. S.,
Assistant Demonstrators

Clinical Operators.

R. B. DONALDSON, D. D. S.
H. B. NOBLE, SR., D. D. S.
J. CURTIS SMITH, D. D. S.
L. C. F. HUGO, D. D. S.
W. S. HARBAN, D. D. S.
WILLIAMS DONNALLY, D. D. S.

A. F. A. KING, M. D., DEAN.
1315 Massachusetts Avenue N. W., Washington, D. C.

DENTAL DEPARTMENT.**Annual Announcement of the Session of 1894-'95.**

The regular course of lectures begins on Monday, October 1, 1894, and continues seven months.

The Introductory Lecture of the Course will be delivered on the 1st of October, and the regular Lectures will continue throughout the session, beginning at 5.30 p. m. of each week-day.

The Faculty of the Dental Department of this University are fully convinced that less than three years of study and instruction is insufficient *properly* to prepare anyone for the practice of Dentistry in its present state of advancement, and therefore announce that in order to become eligible for graduation the student *must* attend three full courses of seven months each, held in different years, with such exceptions as are hereinafter stated.

The subjects of the several courses are arranged as follows:

FIRST YEAR.—Anatomy, Physiology, Chemistry, and Materia Medica, together with Practical Anatomy, Histology, and such Infirmary work as is suitable for first-year students.

SECOND YEAR.—The subjects of the first year are continued, and to these are added Operative Dentistry and Prosthetic Dentistry, with more advanced Infirmary work.

THIRD YEAR.—This year is devoted *exclusively* to Operative and Prosthetic Dentistry. An examination is held at the end of each year on all subjects taught during that year.

As, however, no amount of scientific attainment can compensate for lack of manipulative skill, a large part of the student's time is devoted to

actual practice in the Infirmary, for which purpose the large and centrally located College building gives ample opportunities.

The operating room fronts on one of the Government reservations, and thus has a full, unobstructed light, so desirable in dental operations. It is furnished with all necessary appliances that will enable a student to acquire the knowledge of office practice, as well as a diversity of Clinical experience.

A large, comfortable, and well-lighted dental laboratory is supplied with all the requirements for the successful practice of Prosthetic Dentistry, and lockers are available for the safe keeping of instruments belonging to the students.

The extracting room is separate from the others and is fitted up for the proper administration of the various anesthetics, under the immediate supervision of a demonstrator thoroughly skilled in their application.

Special attention is called to the thoroughness of the practical instruction in the Infirmary, which is under the immediate supervision of Professor LEWIS. Dr. J. R. HAGAN, the Demonstrator in charge, is in constant attendance during the entire term, directing and overseeing the operations of the students, who thus have the benefit of his many years' experience in Dental Practice.

The Infirmary is open every week-day for nine continuous months (being closed during the months of July, August, and September), during which time an abundance of Clinical material is readily available. In fact, fully as many patients present themselves as can possibly be attended to by the students.

The student has, therefore, the privilege of *twenty-seven months' actual practice* in the Infirmary, during which time he may become proficient in all those operations which the dental surgeon is ordinarily called upon to perform in office practice.

GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.

Prosthetic Dentistry and Metallurgy.

PROFESSOR J. HALL LEWIS, D. D. S.

In this Department the principles involved in the construction of artificial substitutes will be exhaustively considered and the lectures supplemented by practical demonstrations of the subjects mentioned.

In addition to the more commonly used vegetable bases for artificial teeth, the use of Gold, Silver, and Platinum will be thoroughly taught.

and Bridge-work, the construction of appliances for correcting Oral Irregularities, Interdental Splints for Fractures, etc., will be carefully considered.

The modes of preparation, properties, etc., of the Metals and Alloys of particular interest to the Dentist will receive special attention.

Professor LEWIS will endeavor to make his instruction thoroughly practical, and to prepare the student for the actual every-day practice of Prosthetic Dentistry.

Operative Dentistry, Dental Anatomy, and Pathology.

PROFESSOR HENRY C. THOMPSON, D. D. S.

This Course embraces Lectures on the Special Anatomy and Physiology of the Teeth. The origin, growth, and eruption of the teeth receive minute attention, and will be illustrated as their importance demands.

The methods of treating, filling, and extracting teeth will not only receive attention in the lecture-room, but be demonstrated clinically by gentlemen whose reputations are fully established as most proficient operators. Dental Pathology and Therapeutics will receive extended consideration from this Chair.

Chemistry.

PROFESSOR E. A. DE SCHWEINITZ, PH. D.

The instruction of this Department embraces:

1st. A short discussion of the various branches of Physics, as Specific Gravity, Pneumatics, Heat, Light, Electricity, etc., as far as they relate to the Science of Chemistry.

2d. The principles of chemical philosophy, the laws of chemical combinations, and of chemical affinity in general.

3d. A discussion of the elementary bodies, both metallic and non-metallic; the best methods of preparing the various inorganic bodies, their properties and reactions, and the means of detecting their presence.

The principles of the science are abundantly illustrated by experiments.

Physiology.

PROFESSOR WM. P. CARR, M. D.

Every effort will be made to teach this subject in a scientific manner. The ground will be fully covered by a two years' course of lectures, and these lectures so illustrated by modern diagrams, models, and experiments as to make them perfectly clear in every detail.

Especial pains will be taken to emphasize those truths that have a known practical value.

Materia Medica and Therapeutics.

PROFESSOR D. W. PRENTISS, A. M., M. D.

In the course of instruction pertaining to this Chair especial prominence will be given to the physiological action of medicines and their therapeutic uses.

It will be the endeavor of Professor PRENTISS to make his instruction as practical as possible. The lectures will be supplemented by working prescriptions and blackboard illustrations as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

Anatomy.

PROFESSOR D. KERFOOT SHUTE, A. B., M. D.

This course of Lectures is arranged with the view of rendering the didactic instruction in Anatomy as full and complete as the limits of the session will allow.

The Lectures will be illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciopicon will also be employed constantly to present photographic views of many regions of the body.

Public oral examinations are conducted by the Lecturer from time to time.

DRS. ISAAC W. BREWER and JAMES R. CHURCH, Prosectors to the Chair of Anatomy, will prepare the subject for the Lecturer.

DR. STERLING RUFFIN, Demonstrator of Anatomy, and his Assistants, DRS. YOUNG, VAN RENSSELAER, GOODALL, MACKALL, WELLINGTON, PHILLIPS, and RICHARDS, give their personal attention to the students in the dissecting-room.

Practical Anatomy.

The Dissecting-Room of this College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied at a moderate price, only sufficient to cover the expense of procuring and preparing it. The room is open both during the day and at night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the Immediate direction of the Demonstrator of Anatomy, who, with his assistants, is present *at stated hours* to give his personal attention to the students and properly instruct his classes in their dissections.

Clinical Operations.

One evening in each week a member of the Corps of Clinical Operators will lecture upon some subject of general interest in Dentistry, and upon the following Saturday, whenever admissible, will give in the Infirmary a practical demonstration of the subject mentioned.

Special attention is called to the fact that the members of the Clinical Corps take an *active* part in the College instruction, each member giving several Lectures on special subjects during the Winter Course, besides holding Clinics at the Infirmary.

Requirements for Matriculation and Graduation.

1. *Matriculants* will be required to show, either by examination or by the exhibit of a diploma or certificate from some reputable literary institution, that they have received a good English education.

2. *Candidates for Graduation* must have attended three full Courses of Lectures, each of *seven* months' duration, and three courses of Clinical instruction in this institution during the regular winter term and in separate years.

Graduates from foreign Medical Schools will have the same privileges as are accorded second-year students in this College, with the additional provision that they will be given a re-examination on the four primary branches on beginning said second year. Should this examination be satisfactory, no further study of the primary branches will be required; but should the examination not be satisfactory the applicant must study all branches, under the same conditions as defined for second-year students of this College.

Students, however, who have attended *one* full course in some reputable Dental or Medical College will be admitted with the same privileges and be subject to the same requirements as are prescribed for our own second-year students.

Students who have passed the primary examination in some *other* dental college must be re-examined (after paying the examination fee of \$20) on entering *this* School. Should said examination not be satisfactory the student must then pay for his lecture tickets on the primary branches and be re-examined in the spring.

Graduates in Medicine from reputable Medical Schools in the United States and Medical students who have passed their examination on the four primary branches of Anatomy, Chemistry, Physiology, and Materia Medica in any of said Medical Schools need not be re-examined on these primary branches on entering this College.

Before becoming eligible for graduation they must take two full courses upon Operative and Prosthetic Dentistry and follow the requirements prescribed for our second-year students.

The candidate must be examined upon all subjects taught in this School, with exceptions noted above, and before the examination he must *perform operations upon the natural organs in the Infirmary* and present a well-constructed specimen of Dental mechanism made by himself in the *Dental Laboratory of the University*, which shall be afterwards deposited in the College Museum.

In addition to the above requirements, the moral character and habits of the candidate, his industry and diligent attendance, will be taken into consideration. Notable negligence, immorality, and habitual absence from the lectures will, it is distinctly understood, preclude the candidate from attaining his degree, even though he may have acquired sufficient technical knowledge to pass a creditable examination. The reservation on the part of the Faculty of the right to make good moral character a prerequisite for graduation must not be overlooked.

Faculty Prize.

A prize will be given by the Faculty to the graduate passing the best examination in *all* branches and having the best Infirmary record. At the last commencement the prize was awarded to CHARLES W. APPLER, Maryland.

Fees, Regulations, etc.

Matriculation (payable once only)	\$5 00
Demonstrator of Anatomy	10 00
Tuition Fee* (each year)	75 00
Examination Fee (not returnable, but payable once only for all Branches)	30 00
Laboratory Instruction (each Branch)	5 00

Graduates of other recognized Dental Colleges will be admitted to the Lectures and to Infirmary Practice on paying the matriculation fee and fifty dollars, or they may be admitted to the Infirmary Practice *only* on payment of the matriculation fee and twenty dollars.

Students who have complied with the requirements for matriculation may be admitted to the Infirmary Practice on payment of the matriculation fee and twenty dollars; said sum of twenty-five dollars will be afterwards credited to them as part payment of Lecture fees, provided they

This applies only to those who matriculate after April, 1893.

enter the lecture classes at the beginning of the term in October next following the Infirmary Course they may have taken.

Payment of the fees is required in all cases, and tickets must be taken out at the commencement of the session, unless *special arrangement be made with the Dean to suit the convenience of the student.*

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States of America.

Students may matriculate at any time during the nine months' Infirmary Course, and thus begin *Infirmary Practice* at once, on condition that they pay \$25, which amount will be credited to them as part payment of their regular fees.

Graduates of this School may be admitted as third-year students in the Medical Department, after passing the *medical* examination in Anatomy, Physiology, Chemistry, *Materia Medica*, and Therapeutics. After two years' additional study on Surgery, Practice, and Obstetrics they will be admitted to the final examination for the Medical degree.

Candidates for graduation in the Dental School who desire to obtain a medical degree thereafter may be admitted to the *medical* examination on the four primary branches at the termination of their second dental course, *provided* they give written notice to the Dean of their intention so to do *one month* before the time of the March examinations, and provided also that they have complied with the requirements of the Medical Department as regards dissection and study of Histology.

The prices of board and all other personal expenses are as reasonable in Washington as in other large cities of the Union. Students requiring further information are requested to communicate with the Dean of the Faculty.

A. F. A. KING, M. D., DEAN,

1315 Massachusetts Avenue, N. W., Washington, D. C.

Telephone call, 885.

Libraries, Army Medical Museum, etc.

The location of the University at the seat of the National Capital affords several striking advantages to the dental student. He has free access to the Libraries of Congress, of the Army Medical Museum, of the Smithsonian Institution, and of the Patent Office, all of which contain rare and costly works in every department of science and literature.

The Congressional Library contains copies of all the important dental works ever published, and the student has free access to these for study or reference on any week day from 9 to 3 o'clock.

The Army Medical Museum, situated on B street, corner Seventh street S. W., is also open for daily inspection, with its unrivalled collection of pathological specimens illustrating the results of disease in every form. It also contains almost numberless crania of every human nationality, by an examination of which the student can find many dentures of theoretical perfection, and observe the effect of civilization and race admixture upon the dental organs.

Apart from these considerations, students from a distance have the opportunity of spending the winter profitably at the seat of the National Government during the session of Congress. The College lectures beginning at 5.30 in the evening, ample time is afforded during the term for visiting the public buildings, works of art, and other places of interest to a stranger. Prominent among these may be mentioned the new National Museum, established in connection with the Smithsonian Institution. Here may be seen fully classified collections illustrating the arts and industries of the country, and of special interest to the medical and dental student there is found in this Museum the most complete and best arranged collection of *Materia Medica* in the world. The drugs are shown in all their processes of manufacture, from the original package in which they are imported or marketed to the delicate alkaloid constituting the active principle.

Of great interest, also, are the Government Botanical Gardens and the Grounds of the Agricultural Department, where the student of botany may find a rare collection of medical plates, from which are derived many of the preparations of the *Materia Medica*.

At the United States Patent Office models of every conceivable form of dental instruments may be daily inspected, thus affording to the student an invaluable opportunity for studying the mechanical contrivances used in dental practice that is not to be obtained in any other city.

Text Books and Works of Reference.

ANATOMY.—*Wilson's Anatomy*,* *Quain's Anatomy*, *Holden's Manual of Dissection*.

PHYSIOLOGY.—*Yeo's* or *Flint's Physiology*, *Foster and Langley's Practical Physiology*, *Rutherford's Practical Histology*.

CHEMISTRY.—*Mitchell's Dental Chemistry*, *Barker's* or *Fowne's Chemistry*.

MATERIA MEDICA.—*H. C. Wood's Therapeutics*, *National Dispensatory*, *Edes' Therapeutics*.

* The works first named and in *italics* are preferred

PROSTHETIC DENTISTRY.—*Richardson's Mechanical Dentistry*, Essig's Dental Metallurgy.

OPERATIVE DENTISTRY.—*Harris' Principles of Practice*, Tomes' Dental Anatomy and Surgery, Taft's Operative Dentistry, Garretson's Oral Surgery, American System of Dentistry—Litch; Gould's Medical Dictionary.

Students of Dentistry.

Name.	Residence.
Frank A. Austin,	District of Columbia.
Richard V. Barry,	District of Columbia.
Chester H. Beatty,	District of Columbia.
Emmett M. Carter,	District of Columbia.
Joseph Cohen,	Texas.
Edward F. Concklin,	District of Columbia.
Eppa H. Coumbe,	District of Columbia.
Henry A. Dunn,	District of Columbia.
Eugene P. Frazer,	Georgia.
John H. Galloway,	Iowa.
Alexander J. Gibson,	Alabama.
William S. Gustin,	Ohio.
Robert E. L. Hackney,	Virginia.
Wilmer S. Hall,	Alabama.
Fessenden F. Hicks,	Maryland.
William Hislop,	Canada.
Hubert L. King,	District of Columbia.
Henry Knowles,	Georgia.
Eugene L. Le Merle,	District of Columbia.
Charles H. L. Lemon,	District of Columbia.
Walter A. Low,	Virginia.
Samuel C. Lockett,	Texas.
William A. Lyon,	Kansas.
Herbert MacNamee,	New York.
Harry B. Moore,	District of Columbia.
David A. Morton,	New Jersey.
Wesley C. Orr,	New York.
Frederick W. Parker,	New York.
Harry Parsons,	New York.
Warren Parsons,	California.
William K. Petty,	District of Columbia.
Arthur L. Russell,	Texas.
T. Guy Songster,	District of Columbia.

Name.	Residence.
James Beverly Stewart,	Virginia.
Charles V. Stiles,	District of Columbia.
James D. L. Tench,	Florida.
Pearce Thompson,	Kentucky.
Wines E. Thornton,	Vermont.
William H. Trail,	Maryland.
Ernest Varela,	California.
Israel G. Warfield,	Maryland.
James L. Whiteside,	Maryland.
Howard A. Wiltberger,	Pennsylvania.
Elmer F. Yount,	District of Columbia.

Total 44

THE COLUMBIAN COLLEGE.

The Faculty.

JAMES C. WELLING, LL.D., PRESIDENT,
Professor of Political and Historical Philosophy.

THE REV. ADONIRAM J. HUNTINGTON, D.D.,
Professor of the Greek Language and Literature.

THE REV. SAMUEL M. SHUTE, D.D.,
Professor of the English Language and Literature, and of Anglo-Saxon.

ANDREW P. MONTAGUE, A.M., PH.D.,
Professor of the Latin Language and Literature.

J. HOWARD GORE, B.S., PH.D.,
Professor of Mathematics, and of the German Language and Literature.

HOWARD L. HODGKINS, A.M., PH.D.,
Professor of Physics, and Adjunct Professor of Mathematics.

LEE D. LODGE, A.M., PH.D.,
Professor of the French Language and Literature.

THE REV. J. MACBRIDE STERRETT, D.D.,
Professor of Intellectual and Moral Philosophy.

CHARLES E. MUNROE, S.B.,
Professor of Chemistry.

H. CARRINGTON BOLTON, PH.D.,
Non-resident Lecturer on the History of Chemistry.

J. S. LEMON, PH.D.,
Lecturer on Physiological Psychology.

CYRUS ADLER, PH. D.,
Lecturer on Oriental History.

ANTONIO M. SOTELDO, LL. D.,
Professor of Spanish.

E. HILTON JACKSON, A. B., LL. M.,
Assistant in Latin.

H. R. PYNE, A. B.,
Assistant in Greek.

H. GRANT HODGKINS, A. B.,
Registrar and Librarian.

The College is open to students of both sexes.

The regular course of instruction is comprised in ten schools, as follows:

- I. SCHOOL OF ENGLISH: including English Philology, English Literature, Rhetoric, Logic, Elocution, General History, and Anglo-Saxon.
- II. SCHOOL OF GREEK: including the Greek Language and Literature and the History of Greece.
- III. SCHOOL OF LATIN: including the Latin Language and Literature and the History of Rome.
- IV. SCHOOL OF FRENCH: including the French Language and Literature and the History of France.
- V. SCHOOL OF SPANISH: including the Spanish Language and Literature and the History of Spain.
- VI. SCHOOL OF GERMAN: including the German Language and Literature and the History of Germany.
- VII. SCHOOL OF MATHEMATICS: including Pure Mathematics, Mechanics, and Astronomy.
- VIII. SCHOOL OF CHEMISTRY: General, Inorganic and Organic Chemistry, Laboratory Practice, Qualitative and Quantitative Analysis.
- IX. SCHOOL OF PHYSICS.
- X. SCHOOL OF PHILOSOPHY.

School of English.**PROFESSOR SHUTE.**

1. Instruction is given in the fundamental principles of style and invention, mainly in their rhetorical, and incidentally in their logical aspects. Instruction is given in elocution and composition; also in the general outlines of English and American History. Three hours a week.

Text-books: Genung's Rhetoric; Thompson's History of England; Eliot's History of the United States.

2. Instruction is given in the principles of pure and applied logic, and application of these principles is required in analyzing and reconstructing ordinary forms of argumentation in select authors. Instruction is also given as to the origin, development, and present powers of the language; also in the biography, times, and works of the best English writers. Three hours a week.

Text-books: Jevons' Logic; Hudson's Shakespeare; Shaw's English Literature; Sweet's Anglo-Saxon Primer and Beowulf.

3. Fowler's Inductive Logic; Hunt's Prose and Prose Writers; American Literature. Four hours a week.

4. Elocution and Essays throughout the Course; Modern History; Criticisms of American Literature. Two hours a week.

A certificate of proficiency is granted on completing Courses 1, 2, and 3; a diploma for Courses 1-4, inclusive.

For Graduate Courses in English, see under head of "Graduate School."

School of Greek.**PROFESSOR HUNTINGTON.****MR. H. R. PYNE.**

In this School instruction is given in the Greek Language and Literature and in Greek History. The following books are used as text-books or for reference: Goodwin's and Hadley's Greek Grammars, Boise's Exercises in Greek Syntax, and Smith's History of Greece.

Lectures are given to the higher classes on Greek Literature.

Frequent exercises are assigned to the classes in rendering into Greek English translations from Greek authors.

Liddell and Scott's Greek Lexicon, Kühner's Greek Grammar, Goodwin's Greek Moods and Tenses, Findlay's or Long's, or Ginn & Co.'s Classical Atlas, Smith's Greek and Roman Antiquities, and Grote's or Curtius's History of Greece are recommended to students in all the classes.

In this School portions of the following authors are studied :

1. Homer: Herodotus. Also, the History of Greece. Three hours a week for two terms.

2. Xenophon (*Memorabilia*); Lucian. Three hours a week for one term.

3. Isocrates. Three hours a week for one term.

4. Sophocles, Euripides, Demosthenes, Lysias, and Thucydides. Three hours a week for two terms.

5. Plato and Thucydides, or Æschylus. One hour a week for two terms.

A certificate of proficiency is granted on completing courses 1 and 2; a diploma for courses 1 to 5, inclusive.

For Graduate Courses in Greek, see under head of "Graduate School."

School of Latin.

PROFESSOR MONTAGUE.

MR. JACKSON.

In this School instruction is given in the Latin Language and Literature and in Roman History. The School offers nine courses, of which 1 and 2 are required for a certificate, and 1, 2, 3, 4, and 5 (or 6) for a diploma in Latin. Courses 7, 8, and 9 constitute the Graduate Department, in which those parts of the works of the authors named which are not usually read by undergraduates are assigned. In all the courses the study of the Latin Grammar, the writing of exercises, original and selected, and sight reading are required.

Grammars: Harkness's (text-book), Allen and Greenough's, Peters's and Madvig's. Lexicons: Harper's, White's English-Latin. Roman Literature: Cruttwell's, Wilkins's. Classical Atlas: Ginn & Co.'s or Kiepert's. Histories: Merivale's, Allen's, Myers's. In all the courses selections from the Latin authors for private reading and examination are prescribed and the study of Roman Literature is pursued.

Courses: 1. Ovid, Livy, Horace (*Odes*), the History of Rome; three times a week for nine months. 2. Horace (*Satires* and *Epistles*), Cicero (*De Senectute* and *De Amicitia*), Plautus (*Captivi*); three times a week for four and a half months. 3. Cicero (*Letters*), Tacitus (*Germania*), Terence (*Andria*), Roman Antiquities; three hours a week for four and a half months. 4. Tacitus (*Agricola* and *Annals* I.), Pliny (*Letters*), Seneca, Juvenal, Critical Study of the History of Rome; three hours a week for nine months. 5. Quintilian; one hour a week for six months. 6. Cicero (*De Finibus*), Social Life of the Romans; one hour a week for five months.

For Graduate Courses in Latin, see under head of "Graduate School."

School of French.

PROFESSOR LODGE.

1. The class is drilled in French pronunciation; grammar; progressive exercises in composition; conversation.

Works read: *Histoire d'un Conserit*; *Le Voyage de M. Perrichon*; *Un Mariage d'Amour*; Edgren's French Grammar is used. Three hours a week.

2. French syntax critically studied; Dictation Exercises; Short Original Essays; French Conversation.

Works read: *Petite Histoire du Peuple Français*, Lacombe; *Le Cid*; *Athalie*; *L'Avare*; *Colomba*; Parallel readings in *Corinne*; *Sauveur's Grammaire Française*. Three hours a week.

3. French Idioms studied; Lectures on the development of the tongue; Comparative Philology.

Works read: *Bug-Jargal*; *Le Bourgeois Gentilhomme*; *Horace*; *Cinna*; *Le Barbier de Séville*; *La Poudre aux Yeux*; *La Bataille de Dames*; Parallel reading in nineteenth century authors. Three hours a week.

4. Philological studies based on original texts; thorough investigation in the origin of the laws of French syntax; *La Chanson de Roland*; *Ruy Blas*, *Hernani*, and *Crane's Romantisme Français* are also read. Two hours a week.

5. Lectures on the history of French Literature; systematic study by the class of one or more epochs; comparative literature. The authors read vary with the epochs chosen for study. Two hours a week.

A certificate of proficiency is granted on completing courses 1 and 2; a diploma for courses 1, 2, 3, 4 or 1, 2, 3, 5.

For Graduate Courses in French Philosophy, see under head of "Graduate School."

During the first term opportunity is given for *Seminary* work of a strictly literary nature. One of the makers of French Literature is studied in his genesis, his essential characteristics, and his influence upon later writers in France and in other lands.

School of Spanish.

PROFESSOR A. M. SOTELDO, LL. D.

Thorough instruction will be given in the Castilian Language, with especial regard to a true and correct pronunciation and to the acquisition of the language in the shortest time possible.

Soteldo's "Spanish Grammar" and "Gramática Inglesa para les Españoles," composed especially to promote the reciprocal studies of the

two predominant languages of the three Americas, will be used as text-books.

The successful completion of a two-years' course of study will entitle the student to a certificate; a four-years' course to a diploma.

Class days: Mondays, Wednesdays, and Fridays, at 4.30 p. m.

School of German.

PROFESSOR GORE.

Instruction in this department has, as its primary object, a thorough knowledge of the Grammar and familiarity with the literature, with such practice in conversation as shall serve as a stimulus in the furtherance of this object.

German Grammar is studied during the first three years of the course, with its principles illustrated from the class readings and written exercises.

Text-books: Sheldon's and Joynes-Meissner's German Grammars.

1. Readings from *Bilderbuch ohne Bilder*, Andersen; *Das Kalte Herz*, Hauff. Two hours a week.

2. Readings from *Der Neffe als Onkel*, Schiller; *Höher als die Kirche*, and selected stories. Two hours a week.

3. Readings from Lessing, Auerbach, Heyse, and Freytag. Two hours a week.

4. Elective seminary studies: Gore's German Science Reader, and extensive reading at sight. Two hours a week.

A certificate is granted on the completion of the four courses.

School of Mathematics.

PROFESSORS GORE AND HODGKINS.

In this School instruction is offered in seven courses.

1. Solid Geometry; Wells' Geometry. Four hours a week for one term.

2. Algebra; Bowser's and Wells' Algebras. Four hours a week for one term.

3. Plane and Spherical Trigonometry, Wells'. Three hours a week for one term.

4. Analytic Geometry, Wentworth. Three hours a week for one term.

5. Differential and Integral Calculus, Taylor. Three hours a week.

6. Mechanics, Peck; Least Squares, Merriman. Two hours a week.

7. Astronomy, Young's General Astronomy. Two hours a week.

A certificate of proficiency is granted on completing courses 1, 2, 3; a diploma for courses 1, 2, 3, 4, 5, 7, or 1 to 6, inclusive.

For Graduate Courses in Mathematics, see under head of "Graduate School."

School of Chemistry.

PROFESSOR MUNROE; PROFESSOR BOLTON.

1. For students who have taken mathematics 1 and 2 and Physics 1. General Inorganic and Organic Chemistry. Three hours per week for one year.

Text-books: Barker's Elementary Chemistry; Remsen's Organic Chemistry.

2. For students who have taken course 1, Laboratory Practice. Three periods per week for one year.

Text-book: Cooke's Laboratory Practice.

3. For students who have shown marked aptitude in course 2, Qualitative and Quantitative Analysis and Chemical Preparations.

Text-books: Clowe's Qualitative Analysis; Thorpe's Quantitative Chemical Analysis.

A certificate of proficiency is granted on completing course 1, and a diploma for courses 1 and 2.

For Graduate Courses in Chemistry, see under head of "Graduate School."

H. CARRINGTON BOLTON, Ph. D.,

Non-resident Lecturer on the History of Chemistry.

Professor H. CARRINGTON BOLTON, Ph. D., gives from time to time a course of lectures on the History of Chemistry. The course for the last year comprised nine lectures on the topics indicated:

I, Chemical Arts in Bible Times; II, Theoretical Views in Ancient Times; III, The Folly and the Wisdom of Alchemy; IV, The Growth and Decline of Alchemy; V, Paracelsus and the Iatro-chemists; VI, The Era of Phlogiston; VII, The Development of Pneumatic Chemistry; VIII, Lavoisier and the Reformation of Chemistry; IX, The Era of Quantitative Chemistry.

The course was illustrated by diagrams and 250 lantern-slides representing portraits, apparatus, title pages of rare books, interiors of ancient and modern laboratories, etc. The subject was treated from the standpoint of philosophy and of practical chemistry, and the treatment was interspersed with biographies, personal narratives, the description of processes, and with references to contemporary progress in physical science and secular history.

The next course will be philosophical as well as historical, and will revolve around the burning points of chemical research at the present day.

These Lectures are open to all students of the University, to members of the Chemical Society of Washington, and to invited guests.

School of Physics.**PROFESSOR HODGKINS.**

During the session of 1894-'95 three courses will be given, of which course 1 will be required for a certificate and courses 1, 2, and 3 for a diploma.

1. A lecture course on general physics, embracing the fundamental principles of mechanics, sound, heat, light, and electricity. The lectures will be illustrated by experiments and will be based on Avery's Elements of Natural Philosophy, Barker's Physics (Advanced Course), and Ganot's Physics.

For admission to this class courses 1 and 2 in Mathematics will be required and the simultaneous study of course 3 in Mathematics will be necessary. A knowledge of the elements of Physics as contained in Avery's First Principles of Natural Philosophy or in Gage's Introduction to Physical Science is desirable, but will not be insisted on during the next session.

2. A course in Laboratory Physics. This course is designed both to familiarize the student with the ordinary methods of exact experimentation and to extend the knowledge of the principles of Physics as gained in course 1. Lectures on physical theories and on laboratory methods will be given from time to time. Topics for study and discussion will be assigned to the whole class, and to different members of the class will be assigned subjects upon which they will prepare special reports.

For admission to this class, courses 1, 2, and 3 in Mathematics and course 1 in Physics will be required.

3. A lecture and laboratory course in Magnetism and Electricity, following, with some modifications, the course given in Poyser's Magnetism and Electricity (Advanced Course).

For admission to this class courses 1, 2, and 3 in Mathematics and courses 1 and 2 in Physics will be required. In exceptional cases students who have not completed course 2 in Physics may be admitted to this class.

School of Philosophy.**PROFESSOR STERRETT.**

The special studies in this School as directed by Professor STERRETT are pursued in the upper two classes. The Junior Class spends the first half of the year in the study of Psychology, the aim being to make this work a preparation for an intelligent study of Ethics and Philosophy. A careful study is made of the phenomena of intellect, feeling, and will, as organic processes of the man developing into conscious universal relations.

In the absence of more formal instruction in Experimental Psychology, a course of lectures on Psycho-physics will be given this year by Prof. J. S. LEMON, Ph. D., of the Clark University.

This class spends the last half of the year on the History of Philosophy. The course this year is on Modern Philosophy, from Descartes to Herbert Spencer and E. von Hartmann. It is given in a course of lectures—concurrent readings and theses being required from the students.

The Senior Class spends the first half of the year (5 hours a week) in the study of the chief ethical theories. The members of the class are required to study the text of Aristotle, Hobbes, Kant, Mill, and Spencer, and to hand in well-prepared abstracts of their systems. The class-room work is devoted to a critical exposition of these and other theories by means of lectures and discussions. This is followed by a constructive theory of ethics. Green's *Prolegomena to Ethics*, Dewey's *Outlines of Ethics*, and Muirhead's *Elements of Ethics* are put into the hands of the students for use.

The latter part of the year is given to the study of *Political Economy*, chiefly on historical and ethical lines. Here E. de Laveleye and Roscher are used as text-books.

An opportunity is given the students for *Seminary* work in either Ethics or Philosophy, two hours a week in the afternoon.

For Graduate Courses in Philosophy, see under head of "Graduate School."

School of Philosophy.

PRESIDENT WELLING AND DOCTOR ADLER.

The President of the University is charged with the work of instruction in Political and Historical Philosophy. After a course of lectures on the origin and historical significance of the Constitutional Law of the United States, he places Fiske's *Civil Government* in the hands of the student for careful study. After a course of lectures on the genetic ideas of International Law and its place in juristic evolution, he assigns Gallaudet's *Manual* for study.

The President also delivers a course of lectures on the Science of History, considered in its sources, methods of study, its principles of criticism as differently applied to unwritten and written records, and the successive stages of human progress measured along the lines of useful arts and of social institutions. These lectures begin with anthropological studies in primitive society, and are followed by a rapid survey of the "civilizing stream" in its passage from Egypt through Assyria, Judea, Phœnicia, Persia, Greece, Rome, and Latin Christendom, down to the discovery of America.

CYRUS ADLER, Ph. D.,
Of the Smithsonian Institution.

Dr. CYRUS ADLER delivers a course of lectures on the Assyro-Babylonian Empire, comprising: I. A Sketch of its History (four lectures). II. Excavation of the Assyro-Babylonian Monuments (two lectures). III. Decipherment of the Cuneiform Inscriptions (one lecture). IV. The Cuneiform Inscriptions and the Old Testament (two lectures). V. Art and Architecture of the Assyro-Babylonians (one lecture). VI. Their Literature (two lectures). VII. Their jurisprudence (one lecture).

These lectures are open to all students of the University and to invited guests.

For Graduate Courses in Political and Historical Philosophy, see under head of "Graduate School."

Time and Terms of Admission.

The regular examinations for admission to the College are held on the Friday and Saturday immediately preceding the opening of the session. Every applicant is required to deliver to the President testimonials of good moral character, and, if coming from another college, must present a certificate of honorable dismissal.

Candidates for admission to any class of the College must, unless they are graduates of the Preparatory School or of the High Schools of Washington, sustain an examination in the following elementary studies: Spelling, English Grammar, Geography, Elements of History, and Arithmetic.

Candidates for admission to any School will be examined in all the studies presupposed by the curriculum of that School.

Candidates for admission to the School of English will be admitted to its lowest class on passing a satisfactory examination on the preliminary studies above indicated.

Candidates for admission to the School of Greek in its lowest class will be examined in Goodwin's or Hadley's Greek Grammar, Goodwin's Greek Reader or Xenophon's *Anabasis* (first four books), first three books of Homer's *Iliad*, Jones' Greek Prose Composition, and Myers's or Schmitz's *History of Greece*.

Candidates for admission to the School of Latin will be examined in Harkness's Latin Grammar, four books of Caesar's *Commentaries*, six of Cicero's *Orations*, six books of the *Aeneid* of Virgil, Sallust's *Conspiracy of Catiline* (in part), Latin Composition, and Allen's, Myers's, or Pennell's *History of Rome*.

Candidates for admission to the School of French will be examined in Edgren's French Grammar and in the first hundred pages of Super's French Reader.

Candidates for admission to the School of Mathematics in its lowest class will be examined in Algebra (through Quadratic Equations) and in the first four books of Geometry.

Candidates for admission to the School of Physics will be required to pass the examination for admission to the Sophomore Class in Mathematics.

Real equivalents in quality and amount will be received in place of the books or parts of the books prescribed as above for study preparatory to admission into the Schools of Greek, Latin, and Mathematics.

Candidates for admission to any advanced class in any School will be examined in all the previous studies of the class which they propose to enter.

Students wishing to pursue a select course in certain Schools will be admitted to the classes for which they may be found qualified; but an examination in preliminary and indispensable studies will be held in all cases, and every student pursuing such a course, if under the age of twenty-one years, is required to embrace in his selections not less than three distinct schools, with at least twelve recitations or lectures per week. The choice of studies embraced in a Select Course must be made immediately upon the commencement of a term, and no student will have leave to make a new choice of studies during any single term.

Degrees.

The degree of Bachelor of Arts is conferred on students who obtain diplomas in four Schools and certificates in four other Schools: provided the diplomas include those from the Schools of English, Greek or Latin, and Philosophy, and the certificates include those from the Schools of Latin or Greek, French or German, and Mathematics.

The degree of Bachelor of Science is conferred on students who obtain diplomas in four Schools and certificates in four other Schools: provided the diplomas be those from the Schools of Mathematics, Philosophy, French or German, and Chemistry or Physics, and the certificates include those from the Schools of English and Physics or Chemistry.

A diploma is the equivalent of two certificates, and may be so counted in enumerating the certificates required for a degree.

Courses of Graduate study leading respectively to the degrees of Master of Arts and of Doctor of Philosophy are described under the head of the "Graduate School" in this catalogue.

Examination.

At the end of each term an examination of all the classes in all the Schools is publicly held in all the studies of that term.

The results of each Term Examination are combined with those of the daily recitations and attendance of the student during the term, in order to ascertain his academic standing at the end of that term.

Each recitation and each examination are graded on a scale of merit from 0 to 100, and a failure to reach the final average grade of 75 in any study is regarded as a failure in that study.

At the close of each College year all the classes in all the Schools are publicly examined in review of all the studies of that year.

The results of the Annual Examinations are combined with those of the Term Examinations, in order to ascertain the student's academic standing at the end of each year.

A student who fails to pass a satisfactory examination in any study at the end of a College term must present himself for re-examination in that study, and, in default of doing so, shall forfeit promotion with his class in that department.

All examinations which occur at the end of a College year are conducted in writing. Examinations for the degree of Bachelor of Arts are concluded six weeks anterior to the date of the Annual Commencement; that time may be given to Professors for the inspection of written examination papers, and to students for the preparation of parts to be performed on Commencement Day by the successful candidates for the degrees of Bachelor and Master of Arts, to whom public parts on that day may be assigned by the Faculty.

Examinations for prizes and for the degree of Master of Arts are concluded five weeks before the end of each scholastic year.

Annual Prizes.

Besides the honors and degrees conferred in the regular course, prizes are annually offered as the reward of special excellence in particular branches of study.

The Davis Prizes, for excellence in Elocution, founded by the Hon. Isaac Davis, LL. D., of Massachusetts, consist of two gold medals, and are annually awarded to the two successful competitors, in a public contest held on Commencement Day. These prizes are awarded by a committee whom the Faculty selects for this purpose, and are publicly delivered at the close of the contest.

The Staughton Prize, for excellence in the Latin Language and Literature, and the Elton Prize, for excellence in the Greek Language and

Literature, founded by the Rev. Romeo Elton, D. D., of Exeter, England, consist of two gold medals, annually awarded to the best scholar and writer in each of these languages.

The Ruggles Prizes, for excellence in Mathematics, founded by Professor William Ruggles, LL. D., consist of two gold medals, annually awarded to the best two scholars in the Pure and Applied Mathematics.

Any student entitled to a diploma in any School will be allowed to contend for the prize given in that department, provided he shall have pursued the required number of studies during the year, and shall have passed satisfactory examinations in the same.

Prizes in 1892-'93.

Staughton Prize, F. Estelle Throckmorton, District of Columbia; Henry R. Pyne, Maine.

Elton Prize, Henry R. Pyne, Maine; F. Estelle Throckmorton, District of Columbia.

Ruggles Prize, J. Herbert Ford, District of Columbia.

Davis Prize, *First*—Mary Owen Dean, District of Columbia.

Davis Prize, *Second*—J. Herbert Ford, District of Columbia.

The Enosinian Prize, for Excellence in Debate, was awarded by the Society to J. Herbert Ford, District of Columbia.

The Prize for Parliamentary Law, given by Professor GORE, was awarded to Harry D. Sanders, New York.

Annual Commencement.

The Annual Commencement of the College is held on the second Wednesday in June.

Public parts are assigned on Commencement Day to such students only as have passed a satisfactory examination for the degrees of Bachelor of Arts or of Science, except as before indicated, in the case of those who may be contestants for the prize of Elocution.

A Latin Salutatory will be awarded to the graduate in each year whose average standing in all the Schools is the highest, and an English Salutatory to the student who stands second.

The Valedictory is awarded with special regard to the qualifications of the student as a Valedictorian, as well as on the ground of scholarship.

Philosophical, Classical, Scientific, Metaphysical, Ethical, Historical, or Literary Orations may be awarded to students who are eminent respectively in the corresponding Departments.

All the degrees of the College are publicly conferred on Commencement Day.

Diplomas in the several schools and prizes for special excellence in any Department are publicly delivered on the same day.

Public Worship.

Prayers, accompanied by the reading of the Scriptures, are offered daily in the College Chapel. All students are expected to attend this service.

Library Hours.

The College Library, to which large additions were made during the last year, is open every day from 9 o'clock a. m. to 1 o'clock p. m., and from 8 to 10 p. m., for purposes of study and inquiry, as also for the distribution of books. A reading-room, provided with the leading reviews, periodicals, newspapers, etc., is maintained in connection with the Library for the use of students.

The Libraries of Congress and of the various Departments of the Federal Government are accessible to students for purposes of research in any special line of studies.

Literary Society.

The Enosinian Society, a literary association formed by the students of the College, meets weekly in its hall for the purpose of improvement in Debate and Composition.

Lectures.

Courses of Lectures in Literature, Art, and Science (comprising Lectures in English, French, and German) are organized every year by the Faculty. These Lectures are open to all the classes, and to the public on application being made for a ticket of admission. Lectures on Science, under the auspices of the Scientific Societies of Washington, whether delivered in the Lecture Hall of the United States National Museum or in the Lecture Hall of the University, are equally open to all students of the University.

General Orders.

Every student on entering the College is understood by that act to pledge a voluntary acquiescence in the rules and regulations prescribed by the Board of Trustees and Overseers, and by the Faculty acting under the authority of the Board.

A report of the student's standing in all his studies, including a record of all absences from lectures, recitations, or other public exercises of the College, will be rendered quarterly to parents or guardians.

The daily recitations of the College Classes are brought, as far as practicable, into the early portion of the day. The advantages of an attendance upon the debates of Congress and upon lectures before various associations are offered to students of the higher classes without detriment to proficiency in their studies.

College Expenses.

1. Admission Fee (paid but once, on entrance).....	\$10 00
2. Tuition for the year in three or more Schools.....	90 00
3. Tuition for the year in two Schools.....	70 00
4. Tuition for the year in one School.....	50 00
5. Laboratory work in Chemistry, 2 and 3 (material) each.....	10 00

These charges cover all expenses, including public fuel, servants' wages, etc.

Bills are payable semi-annually, in advance.

The College provides no commons, but board may be procured in the city at such reasonable rates that the annual expenses of students need not exceed the sum of three hundred dollars. Eligible boarding-houses are indicated on the bulletin boards of the University.

Scholarships.

The Kendall Scholarship, founded by the late Hon. Amos Kendall and running for six years, two in the Preparatory School and four in the College, is annually conferred on the best scholar in the public High School. Students on this foundation pay semi-annually in advance a fee of eight dollars for public fuel, servants' wages, etc.

A recent ordinance of the corporation increases the number of the free scholarships to six, to be distributed annually among the several public High Schools of Washington in proportion to their respective numbers in attendance.

STUDENTS IN THE COLUMBIAN COLLEGE.

Abbreviations.

C. — Chemistry.
 E. — English.
 F. — French.
 Ger. — German.
 G. — Greek.

L. — Latin.
 M. — Mathematics.
 Phil. — Philosophy.
 Phys. — Physics.
 S. — Spanish.

Candidates for Degrees.

Name.	Residence.
Mabel W. Baker,	District of Columbia.
Frank L. Biscoe,	District of Columbia.
Edmund K. Broadus,	District of Columbia.
Mary K. Chapin,	District of Columbia.
Clara A. Crew,	Ohio.
George R. Davis,	Maine.
Harry H. Donnally,	District of Columbia.
Juliett Maud Duvall,	District of Columbia.
George L. Edmunds,	District of Columbia.
Mary Virginia Fenwick,	District of Columbia.
Harry S. Greene,	District of Columbia.
Bruner Greenup,	Kentucky.
William W. Grier,	District of Columbia.
George P. Henderson,	Maryland.
H. May Johnson,	District of Columbia.
Robert H. King,	New York.
Clifton Laughlin,	Virginia.
Carrie E. Logan,	New York.
Hester E. McNelly,	District of Columbia.
Addie E. Maguire,	District of Columbia.
Russell B. Main,	District of Columbia.
Harry L. Mitchell,	District of Columbia.
Henrietta C. Morrison,	District of Columbia.
C. Le Roy Parker,	New York.
Edward A. Playter,	District of Columbia.
D. Webster Prentiss, Jr.,	District of Columbia.
Elliott C. Prentiss,	District of Columbia.
Spencer B. Prentiss,	District of Columbia.
J. McBride Sterrett, Jr.,	District of Columbia.
Worthington Talbott,	Maryland.

Name	Residence.
Clara M. Upton,	District of Columbia.
Arthur L. Wilson,	West Virginia.
Elinor Wilson,	District of Columbia.
William G. Woodford,	District of Columbia.

Candidates for Degrees, 34.

Special Students.

Orville E. B. Bailey, D. C.,	C., Phil.
Charles M. Beall, D. C.,	E., F., Ger., G., L., M.
Gilbert Bloss, D. C.,	C., F., G., Phys.
H. P. Boyle, D. C.,	C., E., F., M.
S. Duncan Bradley, D. C.,	G., Phys., M.
Harry S. Brown, D. C.,	E., F., Ger., L., M.
Bertha Cooper, Ind.,	Ger., L., M.
Howard G. England, Md.,	E., G., L., Phil.
Horace C. Foulke, D. C.,	L., M.
Sarah D. Gadsden, D. C.,	Ger.
Clarence I. Gessford, D. C.,	E., G.
Mortimer B. Hall, Md.,	C., E., F., Ger., M., Phys.
Henry A. Hayward, Minn.,	S.
Charles G. Hoffman, D. C.,	E., F., Ger.
N. Monroe Hopkins, D. C.,	C., Phys.
Mary L. Hughes, D. C.,	C., E., Ger., M.
Edward D. Johnson, Md.,	E., F., Ger., G., Phil.
B. A., Maryland Agricultural College. 1892.	
Frederick C. Jones, D. C.,	C., E., F., M., Phys.
Cora A. Manning, Canada,	E., F., Ger., M.
Salvador D. Moore, D. C.,	E., G., L.
Jessie S. Nelson, Mont.,	E., Ger., M.
Florence E. Plant, D. C.,	C., Ger., M.
Wright Rives, Md.,	C., F., L., M.
M. Louise Ritchie, D. C.,	C., E., F., Ger.
Syrer Vinje, Minn.,	M.
Thomas J. Weadock, Mich.,	E., F., M.
Mary K. West, Ky.,	E., Phil.
B. S., Garrard College. 1893.	
A. G. Wheeler, D. C.,	S.
Charles F. Wilson, D. C.,	L., M.

Special Students, 29.

THE CORCORAN SCIENTIFIC SCHOOL.

The Faculty.

JAMES C. WELLING, LL. D.,
President.

CHARLES E. MUNROE, S. B.,
Professor of Chemistry and Dean of the Faculty.

THE REV. SAMUEL M. SHUTE, D. D.,
Professor of the English Language and Literature.

ANDREW P. MONTAGUE, A. M., Ph. D.,
Professor of Latin.

J. HOWARD GORE, B. S., Ph. D.,
Professor of Geodesy.

HOWARD L. HODGKINS, A. M., Ph. D.,
Professor of Mathematics.

LEE D. LODGE, A. M., Ph. D.,
Professor of French and Philosophy.

WILLIAM C. WINLOCK, A. B.,
Professor of Astronomy.

FRANCIS R. FAVA, JR., C. E.,
Professor of Civil Engineering.

F. H. KNOWLTON, M. S.,
Professor of Botany.

THEODORE N. GILL, M. D., Ph. D.,
Professor of Zoology.

OTIS T. MASON, A. M., Ph. D.,
Lecturer on Anthropology.

CLEVELAND ABBE, Ph. D., LL. D.,
Professor of Meteorology.

HERMANN SCHÖNFELD, Ph. D.,
Professor of the German Language.

HARRY KING, LL. B.,
Professor of Drawing.

EXUM PERCY LEWIS, B. S.,
Assistant Professor of Physics.

A. W. GREELY, Brig. Gen. U. S. A.,
Professor of Geography.

JOSIAH PIERCE, Jr., M. A.,
Professor of Drawing and Applied Geometry.

H. CARRINGTON BOLTON, A. M., Ph. D.,
Lecturer on History of Chemistry.

A. F. CRAVEN, A. B., LL. B., Ph. D.,
Professor of Economics.

LOUIS AMATEIS,
Professor of Architectural Drawing.

EDWARD FARQUHAR,
Assistant Professor of English.

EVERETT HAYDEN, U. S. N.,
Assistant Professor of Geography.

G. E. CURTIS, M. A.,
Assistant in Meteorology.

T. M. CHATARD, S. B., Ph. D.,
Lecturer on Chemical Engineering.

CABELL WHITEHEAD, B. M.,
Assistant in Assaying.

FRANK L. AVERILL, C. E.,
Instructor in Engineering Field-work.

COLUMBIAN UNIVERSITY.

FELIX FREYHOLD, C. E.,
Assistant in Iron and Steel Construction.

HENRY R. PYNE, A. B.,
Assistant in Latin.

M. M. RAMSEY,
Instructor in Spanish and Italian.

HERBERT L. RICE, B. S.,
Instructor in Astronomy.

E. L. THURSTON, C. E.,
Assistant in Drawing.

GEORGE V. CHANDLER, M. S.,
Assistant in Mineralogy and Geology.

J. S. JOHNSON, B. S.,
Assistant in Applied Mathematics.

EDWIN H. FOWLER, B. S.,
Assistant in Topographic Drawing.

PETER FIREMAN, Ph. D.,
Assistant in Quantitative Analysis.

E. A. MUIR,
Assistant in Machine Drawing.

J. E. BLOMEN, Ph. D.,
Instructor in Physics.

J. S. MILLS, A. M.,
Assistant in Qualitative Analysis.

E. H. MEYER,
Assistant in Free-hand Drawing.

C. L. BRANDENBURG, LL. M.,
Assistant in Commercial Law.

P. W. ROBERTSON,
Assistant in General Statistics.

J. M. CASANOWICZ, Ph. D.,
Lecturer on the History of Statistics.

W. P. HAY, A. M.,
Assistant in Zoölogy.

WORTHINGTON C. FORD,
Lecturer on Statistics.

The School of Science established by the Trustees and Overseers of the Columbian University as a part of their University system of education is called by the name of W. W. CORCORAN in grateful recollection of his many benefactions to the University.

The exercises of the School begin on the second of October and are held in the New University Building (southeast corner of Fifteenth and H streets N. W.), which has been constructed with special reference to the wants of the School.

Properly qualified persons of either sex are admitted as students in the Full Courses of study leading to the degree of Bachelor of Science, as described below, or they may take Special Courses in any of the Departments.

COURSES OF STUDY LEADING TO THE DEGREE OF B. S.

FIRST YEAR.*

(Common to all Courses.)

Chemistry, 1, 6.†	English, 1, 2.
Fine Arts, 1.	French, 1.
Drawing, 1.	Mathematics, 1, 2.

COURSE I—GENERAL.

SECOND YEAR.

Chemistry, 10, 6.	German, 1.
Engineering, 1.	Mathematics, 3, 4.
English, 3, 4.	Mineralogy, 1.
French, 2.	Physics, 1.
Applied Mathematics, 5.	

* Students in Courses II and X will take Course 2 in Fine Arts in addition to the above.

† The numbers following the subjects for study refer to the special topics in the various Departments of the Corcoran Scientific School.

THIRD YEAR.

Chemistry, 6.	Mineralogy, 2 A.
English, 1, 5, 6, 7.	German, 2.
French, 3.	Mathematics, 5.
Geology, 1 A.	Physics, 7.
	Philosophy, 1.

FOURTH YEAR.

The student will pursue a course of study elected by him and which is accepted by the Faculty. Students must submit their proposed Course in writing to the Dean before May 30 of the third year of their Course.

COURSE II—IN CIVIL ENGINEERING.

SECOND YEAR.

Applied Mathematics, 2, 5.	German, 1.
Drawing, 2.	Mathematics, 3, 4.
Engineering, 1, 15, and Field-work.	Mechanical Engineering, 3.
	Mineralogy, 1.
	Physics, 1.

THIRD YEAR.

Applied Mathematics, 6, 9, and Constructive Exercises.	German, 2.
Astronomy, 2.	Engineering, 3, 4, 5, 13, 14, Constructive Exercises and Field-work.
Geology, 1 A.	Mathematics, 5.

FOURTH YEAR.

Applied Mathematics, 7, 8, 10.	Geodesy, 1 (1 term).
Engineering, 7, 9, 10, 13, 14.	Mathematics, 6, 7.
Chemistry, 6.	Physics, 4, 6.

COURSE III—IN ELECTRICAL ENGINEERING.

SECOND YEAR.

Applied Mathematics, 2, 5.	Mathematics, 3, 4.
Chemistry, 10, 6.	Mechanical Engineering, 2, 3.
Engineering, 2.	Mineralogy, 1.
German, 1.	Physics, 1.

THE CORCORAN SCIENTIFIC SCHOOL.

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THIRD YEAR.

Applied Mathematics, 6, 9. Mathematics, 5.
Geology, 1 A. Mechanical Engineering, 4.
Physics, 2, 3, 7, 9.

FOURTH YEAR.

Applied Mathematics, 7, 8, 10. Mathematics, 6, 7.
Engineering, 12, 18. Physics, 4, 5, 6, 8.

COURSE IV—IN CHEMISTRY (A).

SECOND YEAR.

Chemistry, 2, 6. German, 1.
Geology, 1 A. Physics, 1.
Mineralogy, 1.

THIRD YEAR.

Chemistry, 3, 6. German, 2.
Geology, 2.

FOURTH YEAR.

Chemistry, 4, 5, 6, 7. German, 3.

COURSE V—IN CHEMISTRY (B).

SECOND YEAR.

Chemistry, 2, 6. Mathematics, 3, 4.
German, 1. Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Chemistry, 3, 6. Mathematics, 5.
German, 2. Physics, 2, 3.

FOURTH YEAR.

Chemistry, 4, 6, 7. Mathematics, 6.
German, 3. Physics, 6.

WASHINGTON, D. C.

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COURSE VI—IN METEOROLOGY

SECOND YEAR.

Applied Mathematics, 2, 5.	German, 1.
Chemistry, 10, 6.	Mathematics, 3, 4.
Engineering, 1.	Mineralogy, 1.
Geology, 1 A.	Physics, 1.

THIRD YEAR.

Applied Mathematics, 6.	German, 2.
Astronomy, 1.	Mathematics, 5.
Geology, 2.	Meteorology, 1.
	Physics, 5, 6, 7.

FOURTH YEAR.

Applied Mathematics, 8.	Mathematics, 6.
Astronomy, 2.	Meteorology, 2.
Geodesy, 1.	Physics, 8.

COURSE VII—IN GEOGRAPHY.

SECOND YEAR.

Applied Mathematics, 2, 5.	German, 1.
Chemistry, 10.	Mathematics, 3, 4.
Drawing, 2.	Mineralogy, 1.
Engineering, 1.	Geography, 1.
	Physics, 1.

THIRD YEAR.

Astronomy, 1.	Geology, 1.
Engineering, 3, 4, 6.	Mathematics, 5.
German, 2.	Modelling.
Geography, 2.	Physics, 2, 5.

FOURTH YEAR.

Applied Mathematics, 7.	Mathematics, 6.
Astronomy, 2.	Meteorology, 2.
Engineering, 10.	Plate Engraving.
Geodesy, 1.	Methods of Reproduction.
	Telegraphy and Signaling.

COURSE VIII—IN GEOLOGY AND MINERALOGY (A).

SECOND YEAR.

Botany, 1.	German, 1.
Chemistry, 10.	Mathematics, 3, 4.
Engineering, 1.	Mineralogy, 1.
	Physics, 1.

THIRD YEAR.

Botany, 2.	Geology, 1.
Chemistry, 2.	Mineralogy, 2 B.
Engineering, 3.	Physics, 7.
	Zoölogy, 1.

FOURTH YEAR.

Botany, 3.	Geology, 2.
Chemistry, 3.	Meteorology, 2.
Engineering, 6.	Zoölogy, 2.

COURSE IX—IN GEOLOGY AND MINERALOGY (B).

SECOND YEAR.

Botany, 1.	German, 1.
Chemistry, 10.	Mathematics, 3, 4.
Drawing, 2.	Mineralogy, 1.
Engineering, 1.	Physics, 1.

THIRD YEAR.

Botany, 2.	Geography, 1.
Chemistry, 2.	German, 2.
Engineering, 3.	Mineralogy, 2 B.
Geology, 1.	Physics, 7.
	Zoölogy, 1.

FOURTH YEAR.

Botany, 3.	German, 3.
Chemistry, 4, 5.	Geology, 2.
Engineering, 6.	Meteorology, 2.
	Zoölogy, 2.

COURSE X—IN ARCHITECTURE.

SECOND YEAR.

Applied Mathematics, 2, 5.	French, 2.
Architecture, 1.	Mathematics, 3, 4.
Engineering, 15, 9, 2.	Mechanical Engineering, 3.
Fine Arts, 3.	Mineralogy, 1.
	Physics, 1.

THIRD YEAR.

Applied Mathematics, 3, 4, 9, 11.	Fine Arts, 3.
Architecture, 2, 3, 5, 6.	French, 3, or Italian.
Business Practice.	Geology, 1 A.
Engineering, 16, 17.	Law of Contracts.

FOURTH YEAR.

Architecture, 4, 7, 8, 9.

COURSE XI—IN FINANCE AND ECONOMICS.

SECOND YEAR.

English, 3.	Geography, 1.
Finance, 1, 6.	German, 1.
French, 2.	Physics, 1.
	Spanish, 1.

THIRD YEAR.

English, 5, 6.	Geography, 2.
Finance, 2, 3, 4.	German, 1.
French, 3.	Philosophy, 1.
	Spanish, 2.

FOURTH YEAR.

Astronomy, 1.	German, 3.
Botany, 1.	Italian, 1.
Chemistry, 10.	Mineralogy, 1.
Finance, 5.	Philosophy, 2.

COURSE XII—IN LANGUAGE AND LITERATURE.**SECOND YEAR.**

Finance, 6.

Botany, 1, or Mineralogy, 1.

Mathematics, 3.

Physics, 1.

and any five languages which include English, French, and German may be taken as the subjects in which the student is to do his work for the degree of B. S. In English the year is spent in the study of Logic and the principles of Criticism. Instruction in other languages will include the following features:

- (a.) Sight translation from the foreign language into English.
- (b.) Thorough study of grammatical forms.
- (c.) Critical study of syntax; historic explanation of idioms.
- (d.) Copious exercises in composition.
- (e.) Exercises in conversation and dictation.

THIRD YEAR.

Astronomy, 1.

Geology, 1.

Geography, 2.

Philosophy, 1.

Zoölogy, 1.

and work in English to consist of elaborate studies in the history of the development of the English language. In other languages the instruction will embrace:

- (a.) An extended course of reading so selected as to lift into bold relief the development of the great schools of literature which have arisen in each country whose language is studied.
- (b.) Exercises in composition, conversation, and dictation.
- (c.) The history of the language; studies in comparative philology.
- (d.) The history of the people as written by themselves.

FOURTH YEAR.

Chemistry, 10, or Physics, 7.

Philosophy, 2, 3.

The course in English for the year will be a critical study of the history of English literature in its great masterpieces; inductive Rhetoric; and essays, historical, literary, and critical. The instruction in other languages will include:

- (a.) Reading; writing of essays in the language; conversation.
- (b.) The study of one of the most important epochs of the literature.
- (c.) Students are required to write a thesis embodying the results of their study of the works of some great author.
- (d.) Studies in comparative literature.

DEPARTMENTS OF INSTRUCTION.**Department of Anthropology.**

DR. MASON, Lecturer.

(See under head of "Graduate School.")

Department of Applied Mathematics.

(See Department of Engineering.)

Department of Architecture.

———, Head of Department.

———, Associate Professor of Architecture.

———, Lecturer on Sanitary Engineering.

1. History of Architecture, I, one hour.
2. History of Architecture, II, one hour.
3. Original Design (third year), daily, in Architects' offices.
4. Original Design (fourth year), daily, in Architects' offices.
5. The Theory of the Planning of Buildings, one hour, one term.
6. Heating and Ventilation, one hour, one term.
7. Sanitary Engineering, for Architects, one hour, one term.
8. History of Ornament, one hour, one term.
9. History of Painting and Sculpture, one hour, one term.

Department of Astronomy.

PROFESSOR WINLOCK, Head of Department.

MR. RICE, Instructor.

1. General Descriptive Astronomy. Three hours. Young's General Astronomy, with occasional Lectures.

Arrangements have been made for occasional visits to the New U. S. Naval Observatory, so that students may view and study with the aid of the telescope the many celestial objects of both popular and scientific interest.

2. Practical Astronomy, one hour.
 3. Mathematical and Theoretical Astronomy, two hours.
- Theory taught mainly by Lectures, supplemented by the Solution of Problems and Practical Computations.

* Unless otherwise stated, hours per week per Year.

Department of Botany.

PROFESSOR KNOWLTON, Head of Department.

1. Structural and Systematic Botany.

The year will be devoted to general organography and morphology of flowering plants and the higher cryptogams, with brief outline review of the remaining groups. *Field excursions* will be given whenever practicable, and the student will be expected to become familiar with the determination of ordinary flowering plants and vascular cryptogams and to be able to recognize the principal groups at sight. The student will also be instructed as to the proper manner of collecting and preparing plants for the herbarium and directed to begin the preparation of a local herbarium. Two hours.

Text-books: Gray's Structural Botany; Gray's Manual of Botany of the Northern United States.

Reference books: Ward, Guide to the Flora of Washington and Vicinity; Knowlton, Directions for Collecting Recent and Fossil Plants.

2. Histological and Physiological Botany.

The year will be devoted to lectures and laboratory work in histology and physiology. The cutting of sections, staining and mounting of botanical objects, will be described and illustrated.

The field excursions will be continued and the study of the more difficult orders or genera of flowering plants, such as Compositae, Gramineae, Carex, etc., will be taken up. Attention will also be given to the lower groups, as mosses, algae, fungi, etc., and the important characters reviewed.

Each student will be required to collect, prepare, and mount an herbarium of one hundred species of local plants, which must be properly identified and classified. Two hours.

Text-books: Goodale's Physiological Botany; Arthur, Barnes, and Coulter, Plant Dissection.

Reference books: Bennett & Murray, Cryptogamic Botany; Lesqueux and James, Manual of Mosses of North America.

3. Paleobotany.

The year will be devoted to a continuation of the previous year's studies, and also to the general subject of Paleobotany. Instruction will be given mainly by lectures and exhibition of specimens, and will be divided into (a) Historical, (b) Biological, (c) Geological. Especial attention will be given to fossil plants as an aid to geology. *The investigation and collection of fossil plants in the vicinity of Washington will be directed.* Two hours.

Reference books: Zittel's Handbuch der Palaeontologie; Ward's Sketch of Paleobotany.

Department of Chemistry.

PROFESSOR MUNROE, Head of Department.

Dr. BOLTON, Lecturer on History and Philosophy of Chemistry.

Dr. CHATARD, Lecturer on Chemical Engineering.

Mr. WHITEHEAD, Assistant in Assaying.

Dr. FIREMAN, Assistant in Quantitative Analysis.

Mr. MILLS, Assistant in Qualitative Analysis.

—, Assistant in General Chemistry.

1. General Chemistry, being a series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic, and technical chemistry. Considerable new apparatus has been purchased for use in the experiments in this course, and a set of valuable charts has been donated by Dr. Bolton. Three hours.

Text-books: Barker's Remsen's, and Bloxam's Chemistries.

2. Chemical Practice and Qualitative Analysis is a laboratory course in the manufacture of chemical substances; the study of their properties and reactions, and of the means employed for their detection and identification. Twelve hours.

Text-books: Clowe's and Fresenius's Qualitative Analysis.

3. Quantitative Analysis is a laboratory course in the quantitative estimation of the constituents of a specially selected and typical set of chemical substances, which are particularly adapted for teaching the student the aims and methods of quantitative chemical analysis and for imparting facility in manipulation. Fifteen hours.

Text-books: Fresenius's and Thorpe's Quantitative Analysis.

4. Technical Analysis and Industrial Processes is a lecture-room and laboratory course in which the elements of chemical engineering will be taught, and special attention will be given to rapid commercial methods of analysis. Twelve hours.

Text-books: Hempel's Gas Analysis, Phillips's Engineering Chemistry, Wagner's Chemical Technology.

5. Assaying and Metallurgy of the Precious metals, to be carried on by the methods in use by the Government assayers, our laboratory being fitted up on the plan of that of the United States Mint. Through the generosity of the Mechanical Gold Extractor Company a model Crawford mill has been added to our equipment, while we are indebted to Mr. L. G. Johnson for a National Rock and Ore Breaker, to be run by power. Both of these machines may be operated by the Lundell motor presented by the Interior Conduit and Insulation Company with the dynamo

acquired during the last year, so that students in this course may become conversant with the most recent appliances used in the milling of ores. Twelve hours per week for three months.

Text-books: Brown's Manual of Assaying, Rickett's Assaying.

6. History and Philosophy of Chemistry is an illustrated lecture course which is offered gratuitously to all students in the Department and which is given at irregular intervals.

7. Chemistry of the Carbon Compounds is a laboratory course in the preparation and study of the properties of a characteristic series of organic compounds. Through the intercession of a generous friend of the University, this Department has recently been presented with upwards of two thousand specimens of organic coloring matters, and additional ones are promised by manufacturers. Twelve hours.

Text-book: Cohen's Practical Organic Chemistry.

8. Modern Methods for Iron and Steel Analysis is a laboratory course for which a large amount of valuable material has been accumulated. We have available for checking the work samples which have been analyzed by some of our most eminent specialists. Fifteen hours.

Text-book: Blair's Chemical Analysis of Iron.

9. Chemistry of Explosive Substances is a laboratory and field-work course in the preparation and in the study of the properties and methods of analysis of explosive bodies. Fifteen hours.

Text-book: Munroe's Chemistry and Explosives.

10. Experimental Chemistry is a laboratory course for the study of the principles of chemistry and the chemical properties of bodies. Five hours.

Text-book: Cooke's Laboratory Practice.

Special attention will be given in all courses to the methods of making notes. Students will be given practice in making abstracts. All will be required to consult the current periodicals and works of reference. Advanced students will be required to prepare a bibliography on some special topic.

The following lectures given before the Sanitary League in the Main Hall of the University have been open to our students:

Bacteria, by Surgeon General SHERNBERG, U. S. A.; Water in its Sanitary Relations, by Dr. CHARLES SMART, U. S. A.; Channels of Infection, with Special Reference to Water and Milk, by Dr. THEOBALD SMITH; The Animal Parasites which we obtain through our Food, by Dr. C. W. STILES; Color in its Sanitary Relations, by Prof. CHARLES E. MUNROE.

Department of Drawing.

PROFESSOR KING, Head of Department and Lecturer on Mechanical Drawing.

MR. THURSTON, Assistant in Mechanical Drawing.

MR. FOWLER, Assistant in Topographic Drawing.

The Department of Drawing at Columbia University has been organized for the special instruction and training of superior draftsmen.

The course of instruction, in conjunction with those of the other departments of the School, will include all branches of drawing practiced in the departments of the Government, and will consist in the main of practical demonstrations on the blackboard and on the individual board of the student.

1. Mechanical Drawing.
2. Topographic Drawing.
3. Topographic Drawing as Applied in Architecture.

Each of these courses will occupy two hours per week and will be supplemented by practice.

Department of Engineering and Applied Mathematics.

PROFESSOR FAVA, Head of Department.

MR. AVERILL, Instructor in Engineering Field-work.

MR. FREYHOLD, Assistant in Iron and Steel Construction.

———, Assistant in Topographic Surveying.

———, Assistant in Building Construction.

MR. MUIR, Assistant in Machine Drawing.

———, Assistant in Engineering.

MR. JOHNSON, Assistant in Applied Mathematics.

The number of hours after each course signifies "hours per week." Constructive Exercises are carried on largely outside of the regular recitation hours.

APPLIED MATHEMATICS.

1. Elements of Applied Geometry, 1 hour.
2. Descriptive Geometry, parts I and II, and Geometry of Position, 2 hours, and Constructive Exercises, 6 hours. Reference: Fava, Warren, Church, Fiedler, Reye, etc.
3. Perspective and Shadows, 1 hour, and Exercises, 2 hours.
4. Stereotomy, 1 hour, and Exercises, 2 hours. Reference: Warren, Adhémar, etc.
5. Elementary Mechanics, 2 hours, second term.
6. Analytical and Applied Mechanics, parts I and II. Reference: Weisbach, Ritter, and Rankine.

7. Hydrodynamics, Hydraulics, and Pneumatics, 1 hour.
8. Strength of Materials and Theory of Elasticity, parts I and II, 2 hours. Reference: Same as 5 and 6, with Bresse, Collignon, etc.
9. Graphical Statics, parts I and II, 1 hour, and Designing Exercises, 2 hours. Reference: Culmann, W. Ritter, Du Bois, Koechlin, Fava, etc.
10. Mechanics of Machinery, 1 hour. Reference: Rankine, Reuleaux, etc.
11. Mechanics of Construction for Architects, parts I and II, 1 hour.

CIVIL ENGINEERING.

1. Land Surveying and Theory of Instruments, parts I and II, 2 hours, and Practical Exercises and Field-work in the Spring.
2. Use of Surveying Instruments, for Architects, Mechanical and Electrical Engineers, 6 meetings in the Field.
3. Topographical Surveying, parts I and II, 2 hours, and Field Practice.
4. Railroad and Highway Engineering and Hydraulic Engineering (Canals, Rivers, and Harbors, Irrigation and Drainage), 1 hour, and Constructive Exercises, 10 hours.
5. Engineering Field-work and Railroad Surveying, 16 meetings.
6. Hydrographic Surveying and Exercises, 1 hour, 1 term.
7. Masonry and Wooden Structures and Iron and Steel Structures, 1 hour, and Constructive Exercises, 15 hours.
8. Engineering Plant, 1 hour, and Sketching Practice.
9. Materials of Engineering and Metallurgy of Iron and Steel, 1 hour.
10. Water Supply, Sewerage, and Sanitary Engineering, 1 hour.
11. City Engineering, 1 hour, 1 term.
12. Municipal Engineering (Street Railroads and Lighting, for Mechanical and Electrical Engineers, 1 hour.
13. Discussion of Engineering Topics, weekly.
14. Inspection of actual work, fortnightly.

BUILDING CONSTRUCTION.

15. Building Construction, part I, 1 hour, and Constructive Exercises, 15 hours. Reference: Rivingtons, I and II; Burrel, Tutthill.
16. Building Construction, Specifications, and Working Drawings, parts II and III, 2 hours each, and Constructive Exercises, 10 hours.
17. Modern Tall Buildings, and the use of iron in buildings, 1 hour.
18. Construction of Plants and Buildings, for Mechanical and Electrical Engineers, 1 hour, and Constructive Exercises, 3 hours.

Department of English.

PROFESSOR SHUTE, Head of Department.

ASSISTANT PROFESSOR FARQUHAR.

1. Rhetoric; Genung's Practical. Two hours.
2. English Language; Meiklejohn's. One hour.
3. Deductive Logic; Hill's Jevons's. Two hours.
3. Inductive Logic; Fowler's. Two hours.
4. English Literature: Shaw's Complete Manual, edited by Dr. Smith. One hour.
5. Modern History; Mackenzie. One hour.
6. Civil Government in the United States; Fiske's. One hour.
7. American Literature; Beers's Outline Sketch. One hour.
8. Occasional Dissertations and Debates.

ADVANCED ENGLISH.

1. English Etymology.
2. Anglo-Saxon Poetry and Prose.
3. American Literature.
4. Lectures by Professor Farquhar on -
 - (a) The History of the Drama from its Origin to the Closing of the Theaters, in 1642. Mondays, 4:30 to 5:30 P. M.
 - (b) Prose of the 19th Century; Essayists, Novelists, Historians. Wednesdays, 4:30 to 5:30 P. M.
 - (c) General Literature from 1640 to 1830. Fridays, 4:30 to 5:30 P. M.

Department of Finance and Economics.

PROFESSOR CRAVEN, Head of Department.

MR. BRANDENBURG, Assistant in Commercial Law.

MR. ROBERTSON, Assistant in Accounting.

DR. CASANOWICZ, Lecturer on History of Statistics.

MR. FORD, Lecturer on Statistics.

1. 1st Term: Book-keeping and Accounting. Two hours.
- 2d Term: Advanced Book-keeping and Official Accounting. Two hours.
2. 2d Term: Commercial Law and Practice. Two hours.
3. 2d Term: Science of Statistics. One hour.
4. Year: The History of Economic Development. Two hours.
5. 1st Term: The science of Economics. Two hours.
- 2d Term: Practical and Scientific Charities. Two hours.

6. The course in Political Economy given last year will be repeated this year if called for by a class of ten.

7. Commercial Statistics: Students in this Department are earnestly recommended to pursue the collateral subjects of Commercial Geography and Statistics, Physical Geography, Modern History, Civics, Modern Languages, Anthropology, Psychology, and Moral Philosophy.

Department of Fine Arts as Applied to Architecture.

PROFESSOR AMATEIS, Head of Department.

Mr. MEYER, Assistant in Free-hand Drawing.

1. Free-hand Drawing. One hour.
2. Architectural Drawing. (The Five Orders.) One hour.
3. Architectural Drawing. (The Applications of the Five Orders. One hour.

4. History of Architecture and Ornaments. One hour.

The instruction must be supplemented by practice, for which provision is being made.

FOR GRADUATES IN ARCHITECTURE.

5. Lectures and Graphic Lessons on Interior Architecture and Decorations. One hour.

Department of Geodesy.

PROFESSOR GORE, Head of Department.

1. As supplementary to the course in Engineering, instruction is offered in Geodesy, embracing base-line measurement, adjustment of triangulation, computation of geodetic coördinates, and a discussion of the figure of the earth.

Text-book: Gore's Elements of Geodesy. 3d edition.

Department of Geography.

PROFESSOR GREELY, Head of Department.

ASSISTANT PROFESSOR HAYDEN.

The course of instruction will include Physical and Economic Geography. The methods followed will embrace compilations, collations and investigations by the students, and courses of lectures by the professors. The latest text-books will be supplemented and extended to embrace current geographical data, which will be drawn largely from current scientific and statistical publications of the various Governmental bureaus in Washington.

I. Physical Geography: two hours. Especial attention will be given to such parts of the earth as by fauna and flora, by mineral and vegetable deposits, or by other favoring physical conditions, either contribute most largely or promise future advantages to human welfare. Among other subjects will be considered the material influence of climatic conditions and geological formations as factors in the development of natural resources; modifications and extensions of fauna and flora by human or natural agencies; discoveries of mineral, vegetable, and other deposits; transference of centers of population, industries, and commerce; improvements of natural and creation of artificial transportation routes, and other similar physical features related to human activities.

II. Economic Geography: two hours. The subjects specially studied will bear on the most important factors connected with the development of agricultural and mineral resources, the extension and evolution of industrial methods, and their inter-dependence on trade and commerce. The growth or decadence of the more important activities of countries or regions, transitions in industrial methods, modifications of commercial relations, the development of improved transportation routes, will be considered in their inter-relations to each other and their effect on the future development of the world in general and the United States in particular.

A course of six illustrated lectures, open to students, was delivered in the main hall of the University by Dr. G. K. GILBERT before the National Geographical Society on The Shaping of the Earth's Surface:

- | | |
|------------------------|------------------|
| 1. Uplift and Erosion. | 4. Inter-action. |
| 2. Water-work. | 5. Ice-work. |
| 3. Water-work. | 6. Wind-work. |

Department of Geology and Mineralogy.

PROFESSOR MERRILL, Head of Department.

MR. CHANDLER, Assistant.

1. Descriptive Mineralogy. Two hours a week for one term.
2. Determinative Mineralogy. Course A, four hours a week for one term; Course B, six hours a week for one term.

GEOLOGY.

1. Systematic Geology: Geognosy; Dynamical, Structural, and Stratigraphical Geology. Course A, two hours. Text-book; Leconte's Elements of Geology. Course B, three hours. Text-book: Dana's Manual of Geology or Geikie's Text-book of Geology.

2. Economic Geology. Course A, two hours; Course B, three hours. Text-books: Kemp's Ore Deposits of the United States, Merrill's Stones for Building and Decoration.

Mineralogy is taught as introductory to geology. The course is therefore designed with especial reference to minerals as rock constituents or as segregated in ore deposits. So far as possible, the course is practical and includes a study of the ores of the base and precious metals and their associates, and the non-metallic minerals, as the natural salts and the hydrocarbon compounds. Opportunity is given the student to become familiar with blowpipe and qualitative methods of determination, and access is given to a varied collection showing the minerals not merely in their pure and well-crystallized forms, but in massive and granular forms, associated with gangue products and other impurities as occurring in nature.

The Course in Geology consists of lectures, recitations, laboratory and field work. Opportunity is given the students in the laboratory, and, so far as hours will permit, in the field as well, to familiarize themselves with the appearance and general characteristics of rock masses. Text-book recitations are supplemented by lectures on the subjects of rock-formation by sedimentation, metamorphism, and vulcanology, and, so far as time allows, on the methods of study by means of the microscope and thin sections (micropetrology). Under the head of Applied Geology are considered, mainly by lectures and laboratory practice, the subjects comprised under first, mineral veins and metalliferous deposits, their mode of occurrence, origin, and classification; second, the ores of iron, copper, lead, zinc, tin, silver, gold, mercury, manganese, antimony, etc.; and third, the non-metallic minerals, as the coals and hydrocarbon compounds; salts and materials used in chemical manufacture; abrasive, refractory, and fertile materials, mineral pigments, gems and ornamental stones, building stones, limes and cements and mineral waters.

Department of German.

PROFESSORS GORE AND SCHÖNFELD.

1. Accurate training in elementary grammar; exercises in conversation, with readings from *Bilderbuch ohne Bilder*, *Das Kalte Herz*, and *Immensee*. Two hours.
2. More extended course in German syntax; translations into German; conversation, and extensive readings from the novelists, Lessing, Schiller, Goethe; and Gore's German Science Reader, 4th edition. Two hours.
3. Study of the grammar continued; composition of German essays and literary sketches; critical study of German classics, and lectures on German history and literature. Two hours.

WASHINGTON, D. C.:

JUDD & DETWEILER, PRINTERS,

1894.

The following lectures, open to students, have been given before the Philological Association of the Columbian University:

The Purpose Relation in the Aryan Languages. Symposium.

Beowulf, by Prof. S. M. Shute, D. D.

Papers have also been read by Professors Huntington, Montague, Gore, Lodge, and Pyne.

Department of Latin.

PROFESSOR MONTAGUE, Head of Department.

MR. PYNE, Assistant.

1. McCabe's Bingham's Latin Grammar and Caesar.
2. Caesar; Cicero; Vergil; Harkness's Latin Grammar; Exercises.
3. Exercises; Latin Grammar continued: Ovid; Livy; the Odes of Horace; and the History of Rome.
4. The Satires and Epistles of Horace; Cicero, De Senectute et De Amicitia; Selected Letters of Pliny; the Germania of Tacitus; Exercises and Latin Grammar.
5. The Agricola and Histories (Book III.) of Tacitus; Seneca; Juvenal; Quintilian; Exercises; Latin Grammar; and the History of Roman Literature. Bender.

Courses 1 and 2 are preparatory and do not count for a degree.

Department of Mathematics.

PROFESSOR HODGKINS, Head of Department.

1. Algebra: three hours. Bowser's College Algebra.
2. Geometry: two hours. Wells's Plane and Solid Geometry.
3. Trigonometry: three hours, first term. Wells's Plane and Spherical Trigonometry, and Bowser's Treatise on Trigonometry.
4. Analytic Geometry: three hours, second term. Nichols's Analytic Geometry.
5. Calculus: two hours. Bowser's Calculus.
6. Differential equations: two hours. Johnson's Differential Equations.
7. Least squares: two hours, ten weeks.
A lecture course, with references to Merriman's Least Squares and Wright's Treatise on the Adjustment of Observations.
8. Determinants: two hours, ten weeks.
Peck's Determinants; Hanus' Determinants.
9. Quaternions: two hours, ten weeks.
Hardy's Quaternions.

Courses 8 and 9 are short lecture courses based on the books named, and, while intended especially for students who wish only the elements of the subjects, serve as preparation for the advanced courses in the same subjects described under the Graduate School.

Department of Mechanical Engineering.

———, Head of Department.

Mr. MUIR, Assistant in Machine Drawing.

1. Elementary projection and drawing of the elements of machines. For students without preparation. Four hours.
2. Shop-drawing practice. Four hours.
3. Construction of Machinery, part I (the Elements of Machines, etc., one hour, and Constructive Exercises, six hours.
Reference: Unwin, Reuleaux, etc.
4. Construction of Machines, parts II and III, one hour each, and Constructive Exercises, ten hours.

Department of Mental and Moral Philosophy.

PROFESSOR LODGE, Head of Department.

The method of instruction is, first, inductive, viewing the states of consciousness as complexes of physiological and psychological elements which are to be discriminated, described, and correlated empirically by the student; second, historical, tracing the evolution of philosophic opinions; third, comparative, passing in review the teachings of the greatest thinkers on the problems investigated in the class-room.

1. **FIRST YEAR.**—Physiological Psychology. The class is introduced to the study by lectures on man's place in nature. In these the theory of evolution is discussed, and a summary of the arguments for and against it is given. During the first term the class studies Ladd's "Outlines of Physiological Psychology." The text-book for the second term is Porter's "Elements of Intellectual Science." Continual references are made to the writings of Wundt, Ribot, Sir William Hamilton, McCosh, Hall, Dewey, Sully, and James. Two hours.

2. **SECOND YEAR.**—Rational Psychology. In the first term Dr. Porter's book is completed. During the second term the results of the recent researches along the lines of psycho-physics are announced and interpreted. Care is taken to define the relations of psychology to pedagogy. Every lecture is followed by a brief oral examination thereon. The class is required to read and summarize in writing the most important articles that appear during the session in the *American Journal of Psychology*.

Each student at the beginning of the second term is assigned a subject for investigation. On this subject a satisfactory essay must be written before the end of the session.

The above course will be supplemented by lectures, giving first a summary of ancient and mediæval speculation, and then discussing the essential characteristics, the development, the influence, and the fruits of the philosophic systems of such typical thinkers as Descartes, Locke, and Kant. Two hours.

3. THIRD YEAR.—Moral Philosophy. The instruction in moral philosophy includes the following features:

I. Students are taught to recognize, prescind, and correlate the ethical elements in psychical life.

II. The common terminology of ethics is subjected to a rigorous examination, psychological and philological, in order that the precise content of each word, as well as its origin and life-history, may be learned.

III. The course of moral speculation is outlined in lectures upon the chief ethical systems from Socrates to Spencer.

IV. The class then begins the study of Calderwood's "Handbook of Moral Philosophy," which is used as the basis of instruction during the remainder of the year. Two hours per week.

The following lectures, open to students, have been given before the Society for Philosophical Inquiry of the Columbian University:

"Kant's Third Antinomy and his Fallacy regarding the First Cause," by Dr. W. S. HARRIS.

"Criticism and Amendment of Herbert Spencer's Definition of Evolution," by Mr. HENRY FARQUHAR.

"The Relation of Philosophy to Science," by the Rt. Rev. JOHN J. KEANE, D. D., LL. D.

"Discussion of Herbert Spencer's First Principles," by Dr. W. T. HARRIS.

"Being and Existence," by the Rev. FRANK SEWALL.

"Agnosticism," by the Rev. Prof. ALFRED MOMERIE, D. D.

"The Mechanical Theory of the Universe," by the Rev. Prof. FRANK H. BROWN.

"The Ego, its Whence and Where," by Prof. LESTER F. WARD, LL. D.

"The Relation of Hedonism to Pessimism," by the Rev. J. McBRIDE STURRETT, D. D.

"The Categories of the Real World," by Major J. W. POWELL, LL. D.

"Monism, idealistic and realistic," by Prof. E. S. STEELE.

"Cartesianism in Philosophy," by Prof. LEE DAVIS LODGE, Ph. D.

"What is Metaphysics?" by President JAMES C. WELLING, LL. D.

Department of Meteorology.

PROFESSOR ABBE, Head of Department.

MR. CURTIS, Assistant.

The series of courses in the Department of Meteorology is designed to give a complete review of the present condition of that science, and is therefore necessarily extended through four years; but the series of lectures is so arranged that each of the four divisions is complete within itself; each course presents a view of a branch of the subject such as may be desired by a large number of students who need this information in connection with other branches of knowledge to which they are specially devoting themselves.

Students who intend to take the degree of Ph. D. in meteorology, and who therefore make this the major subject in connection with several other minor courses, must pursue the whole four years' course. Those who desire merely to enter the service of the United States Weather Bureau will probably find the first year's course sufficient to enable them to pass the necessary civil-service examinations. Those who desire to do work in climatological study should also take the second year. The third year's course is designed for those who wish to perfect themselves in methods of making local weather forecasts. Finally, the fourth year's course will serve as an abundant introduction to the present state of our knowledge of the mechanics and physics of the atmosphere. In addition to the lectures, the instructor will give one hour a week to a quiz-class, in which, by question and answer, he will seek to remove any difficulties that remain.

1. **OBSERVATIONAL METEOROLOGY.** The methods of observation; the simpler instruments, their errors, corrections, and reductions; the use of self-registers; the forms of record and computation; personal diary of the weather.

TIME.—About eighty lectures, or two hours a week, as also eighty other hours of personal investigation of instruments, especially self-registers.

Algebra and trigonometry are necessary preliminaries to this course. Elementary laboratory physics, as illustrated by Hall and Bergen's textbook, is desirable as a preliminary, but may be pursued as a concomitant study. The German language is earnestly recommended as a concomitant. The differential and integral calculus will be needed as preliminary to the Graduate Course in Meteorology.

2. **Climatology**, both local and general; empirical meteorology, generalizations, averages, periodicities, irregularities. The relation of climate to geology, to vegetation, to animal life, and to anthropology.

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TIME.—About forty lectures and four hours weekly given to the investigation of special problems proposed in each lecture.

Students should be familiar with the use of logarithms; the method of least squares; the laws of chance; the details of physical geography, orography, geology, and ocean currents; the physiology of plants and animals; the distribution of species; physical astronomy, especially that of the sun, earth, and moon; terrestrial magnetism; the chemistry of the atmosphere; the biology of atmospheric dust. Physical laboratory work on radiation, conduction, and absorption of heat, and on condensation and evaporation of vapor, and on elementary electricity, is recommended. While German, the calculus and analytic mechanics should be continued as preliminary to the Graduate Course.

Department of Physics and Electrical Engineering.

ASSISTANT PROFESSOR LEWIS, Head of Department.

DR. BLOMÉN, Instructor.

1. General Physics, two hours. First term: Mechanics, Sound, and Heat. Second term: Light, Electricity, and Magnetism.

Barker's Physics (Advanced Course, American Science Series) will be used as a text-book. The course will be fully illustrated by experiments; working models of steam-engines, dynamos, and motors will be shown, and practical physical measurements will be made before the class.

The students who are candidates for degrees are required to perform about fifteen typical experiments in the laboratory.

2. Elementary Mathematical Theory of Electricity. Two hours per week for one term.

3. Dynamo-electrical Machinery. Two hours per week for one term. Shugo and Brooker's Electrical Engineering will be used as a basis.

4. Advanced Mathematical Theory of Electricity and alternating current machinery. Two hours per week for one term. Lectures based on Gerard, Entage, Thompson, and other authorities.

5. Technical Applications of Electricity. Two hours per week for one term.

6. Thermo-dynamics and the Steam-engine. Two hours per week for one term.

Text-book: Holmes' Steam-engine.

7. Physical Laboratory. Three hours. The exercises will include the fundamental measurements and experiments in all branches of Physics, including the following in Electricity and Magnetism: Map of magnetic field, determination of horizontal component of earth's magnetism, dis-

tribution of magnetism, qualitative electrostatic experiments, use of Wheatstone bridge, tangent galvanometer, determination of electromotive force, electro-magnet induction, measurement of current by water and copper voltameter, magnetic dip by earth inductor.

8. Advanced Laboratory Work. Six hours.

9. Inspection of Electric Plants.

Occasional meetings will be held at which papers on special subjects will be read by advanced students. All interested will be welcomed at these meetings.

No regular course in shop-work will be offered at present, but a turning lathe and other tools will be provided, and laboratory students who so desire may familiarize themselves with their use by the construction of various pieces of physical apparatus, plans of which have been prepared.

The leading electrical journals are on file in the library.

The following accessions to the physical laboratory were made during the past year: Riker dynamo, 1 kilowatt, wound by students; parts of Edison dynamo, $\frac{3}{4}$ kilowatt, to be wound by students (gift of General Electric Co.); Lundell motor, 1 horse power (gift of Interior Conduit and Insulation Co.); Ayrton and Perry voltameter; Whitney ammeter and voltameter (gift of Whitney Co., Boston); steam-engine, 4 horse power; switches, sockets, and other specialties (gifts of Hammond Cleat and Iona Electrical Cos.); a spectrometer, barometers, reflecting galvanometers, high-resistance coils, telephones, and other articles have been ordered.

Department of Romance Languages.

PROFESSOR LODGE, Head of Department.

MR. RAMSEY, Instructor in Spanish and Italian.

THE FRENCH LANGUAGE.

1. The whole course is especially adapted to scientific students. The class is drilled in French pronunciation, grammar, and composition, exercises in conversation. After some easy French by way of introduction. *Histoire d'un Conserit* is read. Van Dael's *Introduction to French Language* is used. Two hours.

2. Critical study of syntax; Composition; Dictation. *Le Cid*, *Histoire du Peuple Français*, *Andromaque*, *Bug-Jargal*, and *L'Avare* are read. The "*Revue Scientifique*" is also used instead of a text-book during a part of the year. Two hours.

3. Study of idioms; frequent recitations in French; Composition of French essays; Conversation; Lectures on the development of the French language and literature; selections from De Staël, Hugo, Lamartine, Souvestre, Sandeau, and Scribe. Two hours.

4. A special course in reading, composition, and conversation is offered for students in Course of the Department of Economics. The books read are the standard treatises of the French Political Economists. Periodical economic literature is also read in class. Four hours.

SPANISH.

1. The class is drilled in pronunciation, in hearing the spoken language, and in writing from dictation. The essentials of the grammar are presented, accompanied by practice in reading and conversation. Two hours.

2. More extended presentation of the grammatical structure of the language. Critical and comparative study of syntax and idioms. History and development of the Castilian language and literature. Exercises in literary composition. Reading from standard works of modern Spanish and Spanish-American authors. Two hours.

Text-books: Ramsey's Text-book of Modern Spanish; El Lector Americano, No. III, and Spanish texts to be selected as required.

The course has special reference to the rapidly increasing intercourse between the United States and the Spanish-American Republics, and as much attention as possible is given to the customs, usages, resources, and products of those countries.

ITALIAN.

1. The class is drilled in pronunciation and in translating the exercises of the text-book. After the rudiments of the grammar have been mastered the class is led at once to the reading of the easier classic authors, ending with "I Promessi Sposi" of Manzoni. Two hours.

2. Further study of the grammatical construction and the principles of syntax and style. History and development of the Tuscan language and literature. Selections from Dante Alighieri, Petrarca, Boccaccio, Boiardo, Ariosto, Tasso, Goldoni, and Pellico. Two hours.

Text-book: Ciuro's Italian Grammar.

Department of Zoölogy.

PROFESSOR GILL, Head of Department.

MR. HAY, Assistant in Zoology.

1. Elements and General Principles of Zoology. Two hours. Packard's.
2. Natural History of Invertebrates. Two hours.
3. Natural History of Vertebrates. Two hours.

The address of the President of the Biological Society of Washington was delivered by Prof. C. V. Riley, on "The Social Insects," in the main hall of the University, the meeting being open to students.

Final Examinations.

Examinations are conducted under the following rules of the Board of Trustees:

"Examinations for *degrees* in the Columbian College and the Corcoran Scientific School shall be closed at least six weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported, by the Faculty of each, to the President of the Faculties at least four weeks before the date of commencement."

"Examinations for *prizes* in each of the said Departments, and for the Degree of Master of Arts in the College, shall be closed at least five weeks before the end of the scholastic year, and the names of the successful candidates for either shall be reported at least three weeks before the date of commencement."

Certificates, Diplomas, and Degrees.

To the foregoing subjects a definite value or weight is assigned, the unit being, in general, *one recitation a week for a year*, with a satisfactory examination sustained at the close. The unit in Designing work is two hours a week for one year. The unit in Field-work will vary according to circumstances.

A student completing certain related branches of one department, and passing a satisfactory examination, will receive a Certificate of proficiency.

A student completing all the studies prescribed for any department of which the course extends over two or more years will receive a Diploma.

The degree of Bachelor of Science is conferred upon a student who successfully completes the courses offered or other equivalent courses, aggregating not less than sixty units, which have been approved by the Faculty.

For the courses of study in the Graduate School and the requirements thereof, see under head of "Graduate School."

Scholarships.

Mary Lowell Stone Scholarship, founded as "a memorial to a woman student of science, from a woman, for women students of science," con-

sists of a fund of two thousand dollars, the income from which "is to be paid to needy women, students in the Corcoran Scientific School of the Columbian University, at the discretion of the Dean of said School."

Edward T. Fristoe Scholarship, founded in memory of the first Dean and Professor of Chemistry of the Corcoran Scientific School, consists at present of a fund of three hundred and fifty dollars, the income from which may be paid to some deserving student of chemistry at the discretion of the Dean.

Prizes.

The Willie E. Fitch Prize, for highest excellence in all branches of Chemistry: founded by James E. Fitch, Esq., in memory of his son, consists of Fifty Dollars, which is awarded annually to the student passing the best examination in the Department of Chemistry.

To stimulate students in Engineering, prizes are offered by Francis R. Fava, Jr., Professor of Engineering, to students who attain certain standards in the following branches in the several years of the course:

1. The Designing problem in Building Construction (2d year).
2. A Report on Engineering Work with which the student has been connected during his vacation (3d year).
3. An Investigation in Graphical Statics (4th year).
4. Degree Work (Graduate School).

Prizes 1 to 3 consist of valuable Engineering works, and Prize 4 of a medal.

The Prizes are awarded by Committees of Eminent Engineers, outside of the University, invited for this purpose by the President of the Institution. The prize or prizes are given not merely for the *best* among all papers presented, but only for work reaching a certain *standard* required by the specifications. Thus, one student, even if alone, can compete for a prize, or, in the same class, several students can win prizes at the same time.

In order to be admitted to a prize competition an applicant must be at the time a student of that particular class in which the prize is offered and have a satisfactory standing in all the Departments for which he is registered.

The Willie E. Fitch Prize was awarded in 1892 to H. H. Hawling, and in 1893 to O. J. Schneider. The Fava Prize was awarded in 1891 to C. C. J. Norris, and in 1893 to E. L. Thurston, for excellence in Degree Work in Civil Engineering.

Annual Tuition Fees.

For single studies not involving any laboratory, designing, or field work.....	830 00
For full Courses (in addition to laboratory fees).....	90 00
Laboratory Courses in Chemical Laboratory (except 10).....	100 00
For chemicals used.....	25 00
Deposit (returnable) for apparatus injured.....	25 00
Course 10 in Chemical Laboratory, including cost of material and apparatus.....	50 00
Laboratory Courses in Assaying of Ores and Bullion.....	40 00
For materials used.....	20 00
Laboratory Courses in Physical Laboratory.....	30 00
Laboratory Course in Mineralogy.....	60 00
For materials used.....	10 00
Laboratory work, field-work, and designing in Civil and Electrical Engineering.....	20 00

The tuition fees for special technical instruction not included in the above statement will be fixed when demanded, and will be determined largely by the number of students offering themselves in such work.

All fees are payable in advance, unless special arrangement be made with the Dean to suit the convenience of the student, notice of which must be filed with the Treasurer. Fees for single or for special studies are payable in advance in half-yearly installments. No deduction on account of absence will be made for less time than one-quarter of a scholastic year.

A student desiring to make any change in his course of study or to drop any study must inform the Dean of this fact at the beginning of the month and have the change, if approved, indorsed on his matriculation certificate. *Students failing to conform to this requirement are responsible for the fees entered on their certificates until such notice is rendered.*

Rooms and Board.

During the year 1893-1894 desirable rooms, convenient to the University buildings, have been offered at \$5 to \$10 per month, and good board has been offered at \$15 to \$20 per month.

For further information regarding the Corcoran Scientific School, application may be made to

Prof. CHARLES E. MUNROE,

Dean of the Faculty.

N. B. - Students who wish to pursue the study of Greek in connection with the other studies prescribed in the College Course for the degree of Bachelor of Arts can do so on reporting their names to the President of the Faculty. Classes will be formed in this Department by the Rev. A. J. HUNTINGTON, D. D., Professor of Greek in the Columbian College.

WASHINGTON, D. C. :

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1894.

CANDIDATES FOR DEGREES.**Candidates for the Degree of Civil Engineer.**

<i>Name.</i>	<i>Residence.</i>
Aspinwall, William Humphrey,	Pennsylvania.
Davis, Harold,	Ohio.
Deming, William L.,	District of Columbia.
Johnson, John Scott,	Texas.
B. S., Columbian University, 1893.	
Meigs, John, Jr.,	District of Columbia.
Muir, Edward Adams,	Pennsylvania.
Pendleton, Joseph Saxton,	District of Columbia.
Perry, George Franklin,	District of Columbia.

Candidates for the Degree of Electrical Engineer.

<i>Name.</i>	<i>Residence.</i>
Muir, Edward Adams,	Pennsylvania.

Candidates for the Degree of Bachelor of Science.

<i>Name.</i>	<i>Residence.</i>
Armstrong, John E.,	New York.
Berry, Frederick Brooke,	District of Columbia.
Biehl, William F.,	Ohio.
Ph. B., University of Georgia.	
LL. B., National University, D. C.	
Boettcher, Frederick Ludwig Johannes,	Virginia.
Brockett, Paul,	District of Columbia.
Clancy, M. Agnes,	District of Columbia.
Combs, Clark Waller,	Kansas.
Cook, De Witt Clinton,	New York.
Cousin, James Lewis,	Arkansas.
Cross, S. Clark,	District of Columbia.
Dennison, G. G.,	District of Columbia.
Doolittle, Harry P.,	District of Columbia.
Eckhardt, Nicholas, Jr.,	District of Columbia.
Faulstick, C.,	District of Columbia.
Gana, Don Alfredo V.,	Chile.
Pa. B., University of Chile, 1893.	
Greene, Clark West,	Pennsylvania.
Hackett, William Thomas,	Maryland.

Name.	Residence.
Holbrook, Lille B.,	District of Columbia.
Hudson, John R., Jr.,	Georgia.
Hughes, William Goldsborough,	District of Columbia.
Hull, John B.,	Virginia.
Lieut. U. S. R. M. S.	
Keys, H. M.,	Maryland.
Lamoreux, Don Percy.	Wisconsin.
Lamson, William Mather.	District of Columbia.
Libby, Fred. Nelson.	Wisconsin.
Liehty, John Benjamin,	Illinois.
Loeffler, Carl A.,	Pennsylvania.
Mann, Horace.	District of Columbia.
Mason, Victor L.,	District of Columbia.
Maurin, Timothy Francis,	Louisiana.
Means, Thomas Herbert.	Virginia.
Oertly, David H.,	District of Columbia.
Owens, Charles C.,	Maryland.
Parker, Charles Lieberman.	District of Columbia.
Pletcher, Sergius S.,	Pennsylvania.
Ramsey, Marathon Montrose.	West Virginia.
Reisner, F. F.,	Missouri.
Rice, De La Pointe,	Iowa.
Sioussa, M. J.,	District of Columbia.
Stevens, Robert R.,	District of Columbia.
Taylor, Thomas Charles,	Ohio.
Thatcher, Edward T.,	Minnesota.
Thompson, Charles F.,	Virginia.
Twitchell, Mayville William.	New York.
Woollen, Albert S.,	Indiana.
Workman, Henry C.,	Michigan.

Candidates for Degrees.

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SPECIAL STUDENTS.

Abbreviations.

A. C. — Analytical Chemistry.	Geol. — Geology.
Anth. — Anthropology.	Ger. — German.
Arch. Dr. — Architectural Drawing.	G. — Greek.
As. — Assaying.	L. — Latin.
Asr. — Astronomer.	M. — Mathematics.
B. — Botany.	Mach. Dr. — Machine Drawing.
Bp. — Blowpipe.	Mech. Dr. — Mechanical Drawing.
C. — Chemistry.	Met. — Meteorology.
C. E. — Civil Engineering.	Min. — Mineralogy.
E. — English.	Phil. — Philosophy.
Ec. — Economics.	P. — Physiology.
El. — Electricity.	Phys. — Physics.
F. — Finance.	Psy. — Psychology.
Fr. — French.	S. — Spanish.
Fre. H. Dr. — Free-hand Drawing.	Top. Dr. — Topographical Drawing.
Geog. — Geography.	Z. — Zoology.

Ames, Clara,	D. C., E.
Andrews, Francis H.,	Wyo., Ger.
Arnold, Grant S.,	Pa., As., C., Min.
Ashford, Edwin Welsh,	D. C., F.
M. D., Columbian University, 1890.	
Bailey, Irene Temple,	D. C., Ger.
Bailey, Vernon,	Min., E., Ger.
Bartlett, Lewis M.,	Mass., M.
Bayly, Margaret,	D. C., Ec.
Bayne, John J.,	Va., Mach. Dr.
Beck, Winfred,	Ill., M.
Blandy, Madeleine Alberman,	D. C., Psy.
Blomen, Jonas Emil,	N. Y., As.
Ph. D., Upsala University, 1884.	
Blye, Benjamin F., Jr.,	N. Y., Arch. Dr., Mach. Dr.
Bolway, William J.,	N. Y., C.
Bradbury, Eugene,	Va., Arch. Dr.
Brecht, Walt, T.,	N. J., Mach. Dr.
Brickenstein, John Henry,	D. C., Ec.
Brown, Orville Graham,	D. C., L.
Burnoughs, Lillian O.,	D. C., Psy.
Cavanagh, Julia,	D. C., Geol.
Christman, Artemus J.,	Pa., M.
Chunn, Ida F.,	D. C., E.

Clark, Edna A.,	D. C.,	E.
Clark, Thaddeus S.,	D. C.,	C.
Collins, Frederick,	D. C.,	M.
Connolly, Louise,	D. C.,	Ec., Geol., Geog.
Constantine, Dominique B.,	Ga.,	Ger., Top. Dr.
Cook, May Estelle,	D. C.,	E.
Costigan, Thomas L.,	Del.,	A. C.
Cotton, William Edwin,	D. C.,	C.
Cowan, Alfred Harper,	Can.,	Min.
Craig, Chaplain R.,	Md.,	M., Mech. Dr.
Crawford, Jessie H.,	Ill.,	E.
Croxton, Frederic Cleveland,	Ill.,	C., M., Mech. Dr.
Daly, Bartholomew,	N. Y.,	Arch. Dr., Geol., Mech. Dr.

B. S., Columbian University, 1891.

Dalzell, Samuel,	Pa.,	C.
Davis, Annie Lewis,	Miss.,	Ger., S.
Davis, Charles Allan,	Ohio,	E., Geol.

B. S., Columbian University, 1890.

LL. B., National Law School, 1893.

Davis, Joshua,	Pa.,	A. C.
Ellis, Anna,	D. C.,	E.
Ellis, Edmund P.,	D. C.,	M.
Fadeley, Forrest F.,	D. C.,	C., E., Ger., M., L.
Faris, Robert Lee,	Mo.,	M.
Farmer, Harry,	Iowa,	E.
Faulkner, William Thomas,	Miss.,	Ast., B., C., L.
Ferree, Sheridan,	Idaho,	Geol., Min.
Fishback, Lucy Overton,	D. C.,	Ger.
Flannery, Edward Michael,	Md.,	E.
Ffoulke, Horace Cushing,	D. C.,	A. C.
Forrest, Julius Crawford,	Va.,	M.
Garrison, Carl Louise,	D. C.,	Geol.
Gerry, Philip,	Md.,	E.
Giddings, Mrs. Sallie D.,	Va.,	M.
Greene, Elwin,	Minn.,	Arch. Dr.
Greene, E. Milton,	D. C.,	As.
Grosvenor, Gertrude,	Ohio,	Ger.
Hall, Clarence,	D. C.,	A. C.
Hamner, George Wesley,	Ala.,	F., Ger.

A. B., 1882; A. M., 1885, Hiwassee College, Tennessee.

LL. B., University of Alabama, 1885.

LL. M., Georgetown University, 1886.

Harper, Bartlett E.,	Iowa, E.
Harrison, Nannie S. D.,	Va., E.
Hart, Amos Winfield,	D. C., C.
Hartshorn, Robert H.,	Ohio, A. C.
Hawes, Richard Paulison,	N. Y., M.
Hawling, Henry H.,	D. C., O. C.
Hawthurst, Wilbur,	D. C., Geog.
Havcock, William Hunter,	D. C., M.
Hayden, Elizabeth,	D. C., Psy.
Hayden, Frank,	W. Va., Fr., L.
Hayden, Raphael,	W. Va., Fr., L.
Hayward, Henry Angels,	Minn., S.
Henkle, Benjamin F.,	D. C., Mach. Dr.
Hopkins, S. Monroe,	D. C., As., Phys.
Hudson, Edward Clark,	Tex., Fr., Ger.
Hunt, Livingston,	D. C., E.
Hunter, Mary Effie,	Mass., M.
Ingersoll, William Bigelow,	Md., Fr. H. Dr., Mech. Dr.
Janney, Thomas Gordon,	Va., C. E.
Johnson, J. Burr,	Md., F.
Johnson, William H.,	N. Y., El., M.
Jones, Elizabeth N.,	Mass., M.
Jones, J. W.,	D. C., M.
Kaufman, Harry M.,	D. C., M.
Keefer, Abraham B.,	Pae., M.
Keogh, Margaret,	D. C., M.
Kerr, William H.,	Mo., M.
Kuhnel, Paul A., Jr.,	N. Y., M.
Lamson, Louis Bernard,	D. C., M.
Lee, Harry Holbrook,	Ohio, L., M.
Leonard, William E.,	Iowa, L.
Locker, Edward Farragut,	Ohio, F.
Luebker, Otto James John,	D. C., M.
Lynch, James A.,	N. Y., M.
Lyon, Samuel Powell,	N. Y., M.
McBeth, John,	D. C., Arch. Dr.
McCreery, Thomas L.,	D. C., C.
McDonald, Jessie Claire,	D. C., E.
B. S., Wellesley, 1888.	
McKelden, Marie Christie,	D. C., C.
McNabb, Charles Everet,	D. C., F.

Mahoney, Edward T., N. Y., Mech. Dr.
 Merillat, Margaret J., D. C., M.
 Mills, Joseph Stranger, D. C., As., Fr.
 A. B., Western Maryland College, 1890.

A. M., 1893.

Moon, John B., Minn., Elect., Mach. Dr.
 Moore, William H., Ill., E.
 Morris, Berta C., D. C., E.
 Newton, Amanda A., D. C., Mech. Dr.
 North, Hilda, D. C., M.
 Perham, Ernest Aurestus, Me., M.
 Perlie, Horace Edgar, D. C., M.
 Pfeiffer, George B., Md., As., O. C.

B. S., Virginia Agricultural College.

Phelan, Mary Early, Va., E.
 Phelps, Charles Preston, D. C., A. C.
 Phelps, Francis M., Conn., C., Phys.
 Phillips, Edson, N. Y., Arch. Dr., Fr., Mech. Dr.
 Pike, Lilian, Ark., M.
 Plant, Andrew Clinton, Jr., D. C., Arch. Dr., E.
 Pomeroy-McElroy, Mrs. Karl Thaver, D. C., A. C.

A. M., University of Kansas.

Priest, William Edwin, Pa., Ec.
 Purman, James Wetherow, Pa., A. C.
 Randall, George S., N. Y., E., M.
 Randall, Walter Bailey, La., A. C., As.
 Riley, Ella Josephine, D. C., Geol.
 Robertson, Powhatan Wyndham, D. C.

Robinson, Henry James, N. Y., M.
 Rosen, George Ernest, Ky., Phys.
 Ruebsam, Ernest Carl, D. C., M.

C. E., Columbian University, 1892.

Russ, Edward Bartlett, Pa., Mach. Dr.
 Russell, Edward G., Ga., El., Phys.
 Sammons, Margaret R., N. Y., Mech. Dr.
 Sanders, Salvador A., D. C., M.
 Sawyer, Raymond Estcourt, D. C., M.
 Schiller, Perrie, D. C., C.
 Schwartz, Andrew John, W. Va., M., Phys.
 Shepherd, Harry W., Md., As.

Simmons, Alice M. B.,	Mich.,	M.
Smyth, James Jerome,	Tenn.,	J.
Somes, Frank Case,	D. C.,	C.
Spies, Jennie Harbason,	D. C.,	Geol.
Stanley, Miniea A.,	Mass.,	E.
Starck, Georgia C.,	N. Y.,	M.
Strong, George Williams,	D. C.,	Mach. Dr.
Swearingen, Scott A.,	La.,	M.
Swope, D. Paul,	Pa.,	M.
Thompson, Ernest G.,	D. C.,	E.
Throckmorton, Frances Estelle,	D. C.,	E.
A. B., Columbia University, 1893.		
Thurston, Ernest Lawton,	D. C.,	M.
C. E., Columbia University, 1893.		
Town, Frederic E.,	D. C.,	Ger., M.
Townsend, Arthur,	D. C.,	M.
Tyler, Irene C.,	Mass.,	E.
Vale, Frank Palmer,	D. C.,	Geol., Z.
M. D., Georgetown University, 1893.		
Walker, Albert M.,	Iowa,	C. E.
Watson, Maud,	D. C.,	E.
Weeks, Frederic Boughton,	Kans.,	C., Fr., Ger., Geol., Min., M.
Whitney, Cornelia,	D. C.,	Psy.
Wileox, Charles N.,	N. Y.,	Mach. Dr.
Wileox, Walter Dwight,	D. C.,	Elect.
Wiley, Robert Emmett,	D. C.,	E.
Williams, Frances,	Kans.,	Ger.
Wilson, Alice Louise,	D. C.,	E.
Wilson, Edwin Sherwood,	D. C.,	Asst., Geol., Min.

Special Students, 159

Special Students in Chemistry.

Name.	Residence.
Baldwin, Marian,	Illinois.
Ball, Marion V.,	District of Columbia.
Bradenbaugh, Elizabeth,	West Virginia.
Cabell, Margaret,	District of Columbia.
Gordon, Esther,	District of Columbia.
Gorham, Maud Bassett;	District of Columbia.
Ingersoll, Helene,	District of Columbia.
Keyser, Alice Gertrude,	District of Columbia.
Kirk, Estelle M.,	District of Columbia.
Knight, Evelyn,	District of Columbia.
Merrick, Mildred C.,	District of Columbia.
Noyes, Bertha,	District of Columbia.
Peter, Agnes,	District of Columbia.
Rittenhouse, Elsie C.,	District of Columbia.
Spignul, Mamie,	District of Columbia.
Thompson, Maud,	District of Columbia.
Waite, Mary C.,	District of Columbia.
Watson, Marie M.,	District of Columbia.
Wilkinson, Lucile,	District of Columbia.
Williamson, Mamie,	District of Columbia.
Witman, Alice,	District of Columbia.

Special Students in Chemistry, . . . 21

Recapitulation.

Candidates for Degrees.	55
Special Students in one or more Studies.	159
Special Students in Chemistry,	21
Aggregate,	235

THE GRADUATE SCHOOL.

Faculty.

JAMES C. WELLING, LL. D., PRESIDENT,
Professor of the Philosophy of History.

CHARLES E. MUNROE, S. B., DEAN,
Professor of Chemistry.

THE REV. ADONIRAM J. HUNTINGTON, D. D.,
Professor of Greek.

THE REV. SAMUEL M. SHUTE, D. D.,
Professor of English.

ANDREW P. MONTAGUE, PH. D.,
Professor of Latin.

J. HOWARD GORE, PH. D.,
Professor of Mathematics.

LEE D. LODGE, PH. D.,
Professor of French.

D. KERFOOT SHUTE, A. B., M. D.,
Professor of Anatomy.

FRANCIS R. FAVA, JR., C. E.,
Professor of Civil Engineering.

THEODORE N. GILL, M. D., PH. D.,
Professor of Zoölogy.

OTIS T. MASON, PH. D.,
Lecturer on Anthropology.

THE GRADUATE SCHOOL.

111

CLEVELAND ABBE, PH. D., LL. D.,
Professor of Meteorology.

HERMANN SCHÖNFELD, PH. D.,
Professor of German.

THE REV. J. MACBRIDE STERRETT, D. D.,
Professor of Philosophy.

EDGAR FRISBY, A. M., U. S. N.,
Professor of Astronomy.

WILLIAM C. WINLOCK, A. B.,
Professor of Astronomy.

WILLIAM T. HARRIS, LL. D.,
Professor of Philosophy.

EMIL A. DE SCHWEINITZ, PH. D.,
Professor of Bio-Chemistry.

FRANK W. CLARKE, S. B.,
Professor of Mineral Chemistry.

HARVEY W. WILEY, M. D., PH. D.,
Professor of Agricultural Chemistry.

THE REV. FRANK H. BIGELOW, A. M.,
Professor of Solar Physics.

ALEXANDER S. CHRISTIE, LL. M.,
Professor of Mathematical Physics.

GEORGE P. MERRILL, PH. D.,
Professor of Geology.

HOWARD L. HODGKINS, PH. D.,
Professor of Mathematics.

EXUM PERCY LEWIS, B. S.,
Assistant Professor of Electrical Engineering.

EDWARD FARQUHAR,
Assistant Professor of English.

WASHINGTON, D. C.

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1894

The School of Graduate Studies was established by order of the Corporation of the University at the annual meeting in 1892, and was opened for the reception of students on Thursday, the 5th of October, 1893.

The Second Session will begin October 4, 1894.

The School will be opened each year with a public address by a member of the Faculty. The opening address of the scholastic year 1894-'95 will be delivered by the Dean of the Faculty.

Degrees.

The degrees of Master of Arts (A. M.), Master of Science (M. S.), Civil Engineer (C. E.), Electrical Engineer (E. E.), and Doctor of Philosophy (Ph. D.) are conferred on members of the Graduate School under such regulations as may be established from time to time by the Board of Directors of the School; but no graduate student will be regarded as a candidate for any advanced degree until he shall have been admitted to such candidature by the Board of Directors.

Masters' Degrees.

Persons holding degrees of A. B. from institutions of repute are qualified to enter as candidates for the degree of A. M., and those holding S. B. degrees for the degree of M. S.

Candidates for a Master's degree to be eligible shall pass one year at this University in the advanced study of at least one subject, and shall sustain a satisfactory examination and present a satisfactory thesis on this subject.

Engineering Degrees.

Persons holding the degree of S. B. in Engineering courses, or their equivalent, from institutions of repute, are qualified to enter as candidates for the degrees of C. E. and E. E.

Candidates to be eligible shall pass one year at this University in the advanced study of engineering subjects, shall sustain a satisfactory examination in these subjects, and shall present a satisfactory thesis.

Doctors' Degrees.

Persons holding degrees of Master in Science, in Art, or their equivalent, from institutions of repute, are qualified to offer themselves as candidates for the degree of Ph. D.

Candidates for the degree of Ph. D. shall offer themselves in three topics for advanced study—one major and two collateral minor subjects.

Before being admitted as candidates they shall pass satisfactory examinations in French and German, shall pay an examination fee of five dollars for the examination in each of these tongues, and shall pay a matriculation fee of ten dollars.

To be eligible for the degree, candidates who hold Masters' degrees shall pass two years in study at this University; they shall sustain satisfactory examinations upon the three subjects which they may have elected, and they shall present theses embodying the results of original research in their major subject, which theses they shall be prepared to defend before a board of experts, and shall accompany with an exhaustive bibliography.

Fees.

The matriculation fee of candidates for any degree conferred by the University in this School is ten dollars, but this fee will be remitted to those who shall have taken in this University the preliminary degrees required for their respective candidatures.

The annual fee for instruction and direction of candidates for Masters' or Engineering degrees is thirty dollars.

The annual fee for instruction and direction of candidates for a Doctor's degree is ninety dollars.

Where laboratory courses are taken, whether for a Master's, an Engineering, or a Doctor's degree, the fee in excess of the above-mentioned fees will be fixed according to regulations prescribed by the Board of Directors, with the approval of the Corporation.

Board of Directors of University Studies.

JAMES C. WELLING, LL.D., President, and Professor of History.

CHARLES E. MUNROE, S. B., Dean, and Professor of Chemistry.

THE REV. A. J. HUNTINGTON, D. D., Professor of Greek.

ANDREW P. MONTAGUE, Ph. D., Professor of Latin.

THE REV. SAMUEL M. SHUTE, D. D., Professor of English.

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LEE D. LODGE, Ph. D., Professor of French.

HERMANN SCHÖNFELD, Ph. D., Professor of German.

THE REV. J. MACBRIDE STERRETT, D. D., Professor of Philosophy.

THE REV. FRANK H. BIGELOW, A. M., Professor of Solar Physics.

Inquiries for special information concerning graduate studies in Language, in Speculative Philosophy, in Moral, Political, and Historical Philosophy, and in Anthropology should be addressed to the President of the University.

Inquiries for special information concerning graduate studies in Mathematics, in Astronomy, in Chemistry and Physics, in Geology, in Zoology, in Comparative Anatomy, in Meteorology, and in Civil and Electrical Engineering should be addressed to the Dean of the Graduate School.

Courses of Study in the Graduate School.

The following courses of study are offered to students in the Graduate School. Candidates for the degree of Ph. D. will be required to select their major subject from among those offered below, but the minor subjects may be chosen from among any offered in the University which may prove acceptable to the Board of Directors of the Graduate School.

Graduate School of English.

PROFESSOR SHUTE.

ASSISTANT PROFESSOR FARQUHAR.

Graduate studies in this School are offered in—I. English Etymology; II. English Literature; III. American Literature; IV. Anglo-Saxon Prose and Verse; V. Advanced English, leading, according to prescribed groupings and range of studies, to the degree of Master of Arts or Doctor of Philosophy.

Graduate School of Greek.

PROFESSOR HUNTINGTON.

To candidates for the Master's Degree one of the following courses is offered:

- I. Herodotus and Thucydides.
- II. Homer (parts of the Iliad and Odyssey not read in the undergraduate course) and the Lyric Poets.
- III. The Attic Orators.

To candidates for the degree of Doctor of Philosophy two of the following courses are proposed:

- I. Any two of the courses offered above for the Master's Degree except the one already pursued for that degree.
- II. The Tragic Poets.
- III. Plato or Aristotle.

Graduate School of Latin.

PROFESSOR MONTAGUE.

In this School three courses are offered, and selections are made from those works of the authors named below which are not usually read by undergraduates:

- I. Plautus, Cicero, Tacitus.
- II. Terence, Livy, Pliny the Younger.
- III. Lucretius, Catullus, Seneca, Justinian (*Institutes*).

In connection with each course the following subjects will be studied:

1. Fragments of Early Latin; Latin Inscriptions (Allen).
 2. Roman Versification (Platner).
 3. The History of Roman Literature (Cruttwell).
 4. Critical Study of Syntax (Peters; Roby).
 5. Latin Composition (Translations from prose authors to be rendered without preparation into Latin).
 6. Monthly Essays (*in Latin*) upon the authors and their Times.
 7. Papers upon the peculiarities of authors and upon the obligations of modern to ancient writers, and abstracts of works assigned.
 8. Review of Roman History; Study of Epochs.
 9. Roman Antiquities (Dr. Smith; Rich).
 10. Comparative Philology.
 11. An exhaustive bibliography of each of the authors read.
- For A. M., any one course; for Ph. D., any two courses.

Graduate School of French Philosophy.

PROFESSOR LODGE.

The following courses in French Philosophy are offered to graduate students:

- I. (a.) A Summary of Greek and Roman Philosophy, with a view to establishing the continuity of French thought.
Text-book: Weber's *Histoire de la Philosophie Européenne*.
(b.) Germinal Forms of French Philosophy, implicit in the Literature of France before the Seventeenth century.
(c.) Mediæval French Philosophy.
- II. Descartes: The Evolution of Cartesianism, and Influence of Descartes on Modern Thought.
- III. The Eighteenth Century; Voltaire; The *Encyclopédie*.
- IV. The Nineteenth Century; Cousin and Eclecticism; Comte and Positivism; Recent Philosophy: Spiritualistic, Jouffroy, Jules Simon, Janet; Empirical, Ribot.

V. Political Philosophy: La Boétie, Bodin, Voltaire, Rousseau, Montesquieu.

As a result of his recent researches in Paris the Professor is able to put at the service of students in the Graduate School a large amount of rare and valuable material bearing upon the history of French philosophy.

The completion of any one of the above courses will entitle the student to the degree of Master of Arts, and the completion of any two will be accepted as a major subject for the degree of Doctor of Philosophy.

In all these graduate courses constant use will be made of the valuable sources of original research which are accessible to students in the libraries of the several Departments of the Government and of Congress.

Graduate School of German.

PROFESSOR SCHÖNFELD.

I. History of German Literature, with references to Oelmar, Scherer, Kurz, and König.

II. Critical study of the Nibelungenlied, Zarncke's edition.

III. Literature of the Renaissance and Reformation, with special reference to Erasmus, Ulrich von Hutten, Luther, Murner, Fischart.

IV. History of the Middle Ages, from the beginning of the migrations of peoples to the establishment of the Feudal System and the evolution of European States.

The grouping of studies and the range of research for the degrees, respectively, of Master of Arts and of Doctor of Philosophy subject to arrangement.

The archives of the National Capital will be utilized for research work.

Graduate School of Philosophy.

PROFESSOR STERRETT and PROFESSOR HARRIS.

I. Aristotle's Ethics and Politics.

II. The Ethical Theories of Hobbs, Bentham, Mill, and Spencer.

III. The Ethics of Kant and Hegel's Rechtsphilosophie.

IV. Kant's Critique of the Pure Reason and his Critique of the Judgment.

V. Hegel's Logik and Philosophie des Geistes.

VI. The Philosophy of Religion, Hegel and Pfleiderer.

Any one of these courses may be taken for the Master's degree. Any two of them will constitute a major subject for the Doctor's degree.

Other equivalent courses may be concerted with the Professor in charge.

PROFESSOR WILLIAM T. HARRIS.

Commissioner United States Bureau of Education.

Dr. HARRIS will cooperate with Dr. STERRETT in carrying out certain of the courses above outlined, and will offer special courses in—

1. The exposition of Hegel's *Ästhetik*;
2. The exposition of Hegel's Philosophy of History; and
3. The History of Philosophy:
 - a. The relation of Greek to German Philosophy.
 - b. German Philosophy from Kant to Hegel.

PRESIDENT WELLING.

FOR THE DEGREE OF MASTER OF ARTS.

I. The historical significance of the so-called "Quarrel of the Ancients and the Moderns" in the 17th century, with critical references under this head to the writings and influence of Fontenelle, Perrault, Pascal, Boileau, Sir William Temple, Wotton, Bentley, Dean Swift, Boyle, and others. Rigault's "*Histoire de la Querelle des Anciens et des Modernes*" will be used as a literary guide-book in the conduct of this investigation, which, however, will have for its main object to prompt an original inquiry into the sources of the philosophical idea of human progress. Or—

II. The specific contributions made by the Government of the United States to the improvement of International Law: A critical study and amplification of Wharton's Digest, with an original thesis on the "Right of Asylum," historically and theoretically considered.

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

Analytic investigations will here be combined with a study of synthetic philosophies, and will comprise—

- I. Original study and investigation in a formative epoch of history, such as—
 - a. The Conversion of the Roman Empire to Christianity.
 - b. The Rise and formation of the Temporal Power of the Papacy.
 - c. The Renaissance.
 - d. The Political Awakening in the 18th Century: Causes of the American and the French Revolutions.
 - e. The New Intellectual Awakening: The Rise and Influence of Modern Scientific Method.

Historical experts will be called to assist in directing the investigation of these epochs.

II. A Critique of the Philosophy of History, in the successive stages of its elaboration, from Epiphanius and St. Augustine to Hegel, Comte, and Draper. This critique of the formal philosophies of history will be checked at all points by the comparative method of anthropological science, and the student will be required to take Part II (*Culturgeschichte*) of the graduate course in Anthropology.

Graduate School of Mathematics.

PROFESSOR GORE.

For the degree of Master of Arts: Higher Plane Curves (Salmon); Modern Higher Algebra (Salmon).

PROFESSOR HODGKINS.

For the degree of Master of Arts:

I. Differential Equations.

Johnson's Differential Equations.

II. Determinants.

Hanus' Determinants. Scott's Determinants.

III. Quaternions.

Hardy's Quaternions. Kelland and Tait's Quaternions.

Graduate School of Solar Physics.

PROFESSOR FRANK H. BIGELOW.

Of the United States Weather Bureau.

Graduate studies, for the degree of Doctor of Philosophy, in Solar Magnetism, Cosmical Electricity, and Magnetism, with their relations to Meteorology:

I. SOLAR MAGNETISM.—The constitution of the sun, the solar corona, the sun-spots, and allied problems in solar physics, giving the grounds for the recent developments of the theory that the sun is a polarized sphere surrounded by a magnetic field, which is the basis of these phenomena.

II. COSMICAL ELECTRICITY AND MAGNETISM.—The two fields of force emanating from the sun, their mode of propagation through the æther, the theory of magnetic and electro-magnetic fields as applied to the theories of light, heat, and æther wave-motions. Authors: Maxwell, Poincaré, Fleming, Watson, and Burbury, with references to the recent literature in scientific journals.

III. TERRESTRIAL MAGNETISM.—The distribution of the permanent magnetism of the earth, its disturbance by the solar fields, magnetic instru-

ments, observatories and methods of observation, magnetic storms, the aurora, and atmospheric electricity, with a history of the progress of science of each portion. Authors: Gauss, Lloyd, Walker, Stewart, and Goe, the reports of observatories and recent scientific papers.

IV. METEOROROLOGY.—The thermo-dynamic theory of the distribution of the atmosphere, the motions of the same, the periodic variations due to the solar fields, and the long-range predictions of the weather. A statement of the latest progress in the development of this branch of physics, together with the allied questions of atmospheric absorption and transmission of energy, including important contributions of physical laboratories bearing on these subjects, will be indicated to the student.

Graduate School of Mathematical Physics.

PROFESSOR ALEXANDER S. CHRISTIE,
Of the United States Coast and Geodetic Survey.

Graduate studies for the degree of Doctor of Philosophy in Mathematical Physics:

The course will be based upon the *Traité de Physique Mathématique* of Emile Mathieu. This work deals with the methods of integration in mathematical physics, the theory of capillarity, the theory of the potential, with its applications to electricity and magnetism; the theory of electro-dynamics, and the theory of the elasticity of solid bodies.

Graduate School of Theoretical Astronomy.

PROFESSOR EDGAR FRISBY,
Of the United States Naval Observatory.
PROFESSOR WILLIAM C. WINLOCK,
Of the Smithsonian Institution.

A general knowledge of Descriptive Geometry and of Analytic Mechanics being presupposed, the University offers in this School for the degree of Doctor of Philosophy a reading course in the determination of orbits (with special practice in computing), under the following heads:

I. The Theory of Computing the Parabolic Orbit of a Comet from Three Observations, with an ephemeris. Encke's Memoir on Olbers' Method, *Abhandlungen*, Erster Band. Books of reference: Watson's Astronomy, Oppolzer's *Bahnbestimmung der Cometen und Planeten*.

II. The Theory of Computing an Elliptical Orbit, or any Conic Section, from Three or Four Observations. Gauss's *Theoria Motus*. Books of reference, as above.

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III. An Outline of the Method of Least Squares. Encke, Chauvenet, Brünnow, Watson, Johnson.

IV. The Theory of Special Perturbations, with Method of Integrating by Mechanical Quadratures. Encke: *Abhandlungen*, Zweiter Band und Dritter Band. Books of reference, as above. The method of the variation of the six elements will first be taught. The other methods of Hansen and of rectangular coördinates will follow if needed.

V. The Theory of General Perturbations. Tisserand, *Mécanique Céleste*. An abstract should here be made for the initiation of the student into this most extensive subject. Books of reference: Laplace, *Mécanique Céleste*; Lagrange, *Mécanique Analytique*, and *Memoirs*; Leverrier, *Annals of the Paris Observatory*; Hansen, *Auseinandersetzung*; Pontécoulant, *Système du Monde*, &c.

Astro-Physics.

The University is authorized to announce that one or two students, if possessing special qualifications and prepared by their training to engage in astro-physical research, may be received into the Astro-Physical Observatory connected with the Smithsonian Institution. They will be chiefly employed upon investigations in radiant energy.

Graduate School of Chemistry.

PROFESSOR MUNROE.

Schemes of graduate study in Chemistry leading to the degree of Master of Arts or of Doctor of Philosophy will be offered to students according to their previous training and special aptitudes. Among the courses projected are certain researches upon explosive substances; analytical methods; the phenomena of deliquescence and efflorescence.

PROFESSOR CLARKE.

Chief Chemist of the United States Geological Survey.

Professor CLARKE offers to properly equipped students a course of research work in the development of his theory of the constitution of the natural silicates, and also courses in the redetermination of atomic weights.

PROFESSOR WILEY.

Chief Chemist of the Department of Agriculture.

Professor WILEY will direct special researches in Agricultural Chemistry, provided that students properly trained in the elements of that science shall present themselves for advanced work.

PROFESSOR DE SCHWEINITZ.
Of the Bureau of Animal Industry.

Professor De Schweinitz offers a course in Bio-Chemistry. This course embraces, in addition to what is ordinarily called physiological chemistry—

I. A study of the products, ptomaines and albumoses, of the growth of germs, either in the animal body or upon artificial media.

II. The influence of these substances in causing disease and their relation to, as well as their effect in, insuring immunity.

Department of Zoölogy.

PROFESSOR GILL, Head of Department,
Honorary Curator in the Smithsonian Institution.

A general course of lectures is given on the Principles of Zoölogy, including a consideration of the philosophy, the methods of investigation, and the systems of zoölogy as determined by comparative anatomy.

The lectures are supplemented by work in the laboratory, embracing histology, microtomy, and dissection.

Graduate School of Anthropology.

DR. OTIS T. MASON,
Curator in the United States National Museum.

Candidates for the degree of Doctor of Philosophy in this School are expected to know as much of mineralogy, geology, geography, botany, zoölogy, chemistry, and history as is taught in our best colleges. Some familiarity with the classical languages is very desirable, and French and German are absolutely essential. Students should have a knowledge of anatomy and physiology. (See these courses in the curriculum of the Medical School.) They should also have pursued a course in psychology, with especial reference to the study of physiology. (See Corcoran Scientific School, Department of Mental and Moral Philosophy.)

The special studies of the School comprise—

I. Study of the races of man.

II. The history of culture (*Culturgeschichte*) as embodied in the languages, industries, art, social life, philosophy, and mythology of the various peoples of the earth.

III. The history of the past as revealed in the sciences of archæology and folk-lore.

The works of Topinard, Ladd, Brinton, Peschel, Müller, Hæckel, Hovelacque, Keane, Tylor, Spencer, Morgan, Evans, Gomme, and Lang are used as text, with readings in the journals of the four great Anthropological societies.

Comparative Osteology and Artistic Anatomy.

PROFESSOR D. K. SHUTE.

The special studies in this branch comprise—

I. A brief exposition of the principles of the Evolution of Organic Forms generally; the Vertebrate Form and its Variations (especial attention to be given to the subject of Homologies); the Human Form and its Variations (the latter as affected by occupation, age, sex, disease, etc.).

II. Such thoroughness in the descriptions of the several Bones, Joints, and Muscles, and such study of the Superfices of the Living Model as will enable the Artist to understand the Statics and Kinetics of the Human Body; Methods of studying the Proportions of the Human Body, etc.

Graduate School of Meteorology.

PROFESSOR ABBE.

Of the United States Weather Bureau.

The following scheme of studies in Meteorology, subject to arrangement between the teacher and his pupils, is offered for the degree of Doctor of Philosophy:

I. Practical meteorology; the daily weather chart; the empiric laws of weather changes as depending on meteorological data, and the arrangement of continents, plateaus, mountains, oceans, etc.; weather types and typical weather charts; prediction of daily weather and seasonal climates; verification of predictions.

TIME.—About forty lectures and at least five hours a week additional, in verifying old laws and studying new ones, in making and verifying predictions.

CONCOMITANT STUDIES.—Methods of chart projection; experimental laboratory work in both steady and discontinuous motions of fluids and gases; mathematical and experimental electricity; the laws of refraction and interference of light; elementary hydrodynamics and thermodynamics; differential equations and definite integrals; the German language.

II. Theoretical meteorology. Insolation. The absorption, conduction, and radiation of heat by the air and the earth. The thermo-dynamics of the atmosphere; the graphic methods of Herz and Bezold. Convective

equilibrium, as applied to the atmosphere of the sun by Lane, and to that of the earth by Sir William Thomson (Lord Kelvin) and his successors. Motion on a rotating globe: Ferrel's and other simple approximate relations between baric gradients and the wind and temperature; Ferrel's general circulation of the atmosphere and his cyclones and pericyclones and tornados. Galton's cyclone and anti-cyclone. Fourier's most general equations of gaseous motions. Oberbeck's general circulation. Helmholtz's horizontal rolls. The investigations of Doro Kitao, Guldberg and Mohn, Marchi, Boussinesq, A. Poincaré, Sprung, Siemens, Moeller, Ritter, and others into the motions of the atmosphere. Viscosity and discontinuous movements. The possible special solutions of the general equations of fluid motions that apply to the true atmospheric circulation, both on the earth and on the other planets. Atmospheric tides; theories of Laplace, Ferrel, Rayleigh, Margules, A. Poincaré. Theories of atmospheric electricity.

TIME.—Eighty lectures and an additional four hours a week given to special reading and investigation and to the preparation of the final thesis, as closing the four years' course.

CONCOMITANT STUDIES.—Riemann's "Differential Gleichungen;" Auerbach's "Hydrodynamics;" Lamb's "Fluid Motions" new edition; physical laboratory work in gaseous motions, optical and electrical phenomena.

For Undergraduate Studies in Meteorology, see under head of "Corcoran Scientific School."

Graduate School of Geology.

PROFESSOR MERRILL.

Curator in United States National Museum.

This School offers facilities for advanced study in physical geology, both systematic and applied. Besides a reading knowledge of both French and German, a sufficient knowledge of crystallography and the physics of light is required to enable the student to comprehend and utilize the methods employed in microscopic petrography. The course as planned presupposes a knowledge of determinative mineralogy by both blowpipe and qualitative chemical methods. In case the student selects geology as his principal study, it is advised that a course in quantitative chemical analysis be chosen as one of his minor subjects. It is also desirable that the student devote a certain amount of time to the study of topographic engineering, making himself at least acquainted with the methods of surveying, topographic sketching, and plane-table work, if not proficient therein.

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During the first year the student may devote his time largely, if necessary, to perfecting himself in methods, to general work in the laboratory and in the field, to the examination of geological materials, and to familiarizing himself with the literature of the subject. The utility of the various text-books will be recognized, but a very large proportion of the desired knowledge on any subject must be gained from special memoirs and from the current literature as it appears in numerous periodicals. The various sources of information, the most essential lines of work, as well as the most promising fields of investigation, will from time to time be indicated by the instructor.

During the second year it is expected that the student will devote himself to some special investigation which shall serve as the subject of his thesis. Upon the thoroughness with which this subject is handled, the accuracy of observation, and the originality manifested must depend in largest measure his qualification for the desired degree. The course will be modified to suit individual cases in order that the student be restricted as little as possible in the exercise of personal taste, originality, and capacity for work. Particularly favorable facilities are offered in this course for work in petrography and in various branches of economic geology, owing to the extensive systematic series which will be found available for study in the exhibition halls of the National Museum. Students in architecture and engineering will also find it to their advantage to devote a portion of their time to the subjects presented in this course, giving particular attention to the subjects of strength, durability, and the general weathering qualities of natural structural materials, as well as to the relative hardness and toughness of rock-masses, their structure and methods of formation.

Graduate School of Civil Engineering and Applied Mathematics.

PROFESSOR FAVA.

Students holding the degree of B. S. in Civil Engineering (Course II) of the Corcoran Scientific School or its equivalent can obtain the degree of C. E. by pursuing studies in this Department for one year, as shown below:

The studies will embrace course 10 in the Department of Applied Mathematics of the Corcoran Scientific School, courses 16, 18, 13, and 14 in the Department of Engineering, and course 9 in the Department of Chemistry of the same school; also the law of contracts, political economy, and the elements of business practice. According to personal option, either Mechanical Engineering course 4 of the Corcoran Scientific School in a

mechanical direction, or Engineering courses 15, 16, and 17 of the same school, are recommended. Owing to the large field for the employment of engineers in Spanish-American countries, the Spanish language is recommended for study.

Besides these studies, a complex practical problem of a certain magnitude is given to the applicants for the degree of Civil Engineer immediately after they have obtained the degree of B. S. in Course II. This problem is to be solved during the following year as thesis work. The candidate is placed in the same position as the practising engineer; he has to collect his own data, make his surveys, and is allowed to draw his information from all available sources; but he is expected to furnish a comprehensive report and exhibits, drawings, estimates, etc., which will be complete, and throughout satisfactory as to contents as well as to form.

The subject selected is generally one of the great engineering problems of the day, either in the District of Columbia or outside. The subjects for graduation during the last three years have been: "A New Sewerage System for Washington City;" "A New Water Supply System for the District of Columbia;" "The Railroad Terminal Problem in Washington City;" "The Reconstruction of the Chesapeake and Ohio Canal with regard to protection from floods;" "The Utilization of the Water Power at the Great Falls of the Potomac River for the production and supply of pneumatic power for street railroads, elevators, ventilation, and industrial purposes for the city of Washington." (For prizes for thesis work, see page 89.)

Applied Mathematics.

The degrees of M. S. and Ph. D. can be obtained through studies in this Department in the following directions:

I. *Geometry of position*, developed by projective methods, based on the works of v. Staudt, Moebius, Steiner, Poncelet, etc. Courses 2 of the Department of Applied Mathematics of the Concoran Scientific School and 1 to 5 of the Department of Mathematics, of the same school, and a knowledge of the German and French languages are necessary preliminaries, but the knowledge of advanced mathematics, especially of the works of Chasles, Plücker, Salmon, Hesse, Cremona, and others will greatly facilitate the study of geometry of position.

II. *Graphic Statics*.—This science, brought to a high degree of development by the work of Culmann, can be studied with either of two objects in view:

a. As a part of applied mechanics, when the aim is to develop new methods of calculating mechanical phenomena, such as elastic deflections,

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deformation of beams and elastic arcs, higher grade moments, properties of certain structures, etc.; also to apply graphostatic methods to the determinations of stresses and calculation of parts of machinery. In this direction the works of Koechlin, W. Ritter, Du Bois, "Graphic Statics," Reuleaux, and parts of Culmann are recommended for study. The German and French languages and courses 2, 6, 8, and 10 (Descriptive Geometry, Technical Mechanics, etc.) of the Department of Applied Mathematics of the Corcoran Scientific School are necessary.

b. As a part of Analytical Mechanics, based on geometry of position, the works of W. Ritter and Culmann will be more especially studied. The same prerequisite as for course *a*, with the addition of geometry of position, are necessary, and a thorough knowledge of advanced mathematics, especially determinants (Plücker's coördinates), etc., will be put in requisition.

III. Investigations in analytical and applied mechanics, hydrodynamics, hydraulics, pneumatics, and strength of materials, based on the works of Weisbach, Ritter, Rankine, Bresse, etc. Courses 6 and 8 of the Department of Applied Mathematics of the Corcoran Scientific School, as well as the German and French languages, are required.

Other courses in various branches of applied mathematics, based on the studies scheduled in the Department of Applied Mathematics of the Corcoran Scientific School, can be arranged for on request.

Graduate School of Electrical Engineering.

ASSISTANT PROFESSOR LEWIS.

Students having obtained the degree of B. S. in Electrical Engineering (Course III) in the Corcoran Scientific School or its equivalent will receive the degree of Electrical Engineer upon pursuing a course for one year in the Graduate School, embracing the following studies:

1. Advanced laboratory work.
2. A course of reading of engineering and electrical journals and weekly meetings for the discussion of engineering and electrical subjects.
3. Thesis work, embracing the complete project of an electrical plant for some municipal or industrial purpose, with drawings, designs, and calculations of the plant, machinery, electric devices, with a full description, report, estimate of cost, etc.

Concomitant studies in German and French, the Spanish language, higher mathematics, and advanced machine design, physics, and chemistry are recommended.

Final Examinations.

Examinations are conducted under the following rules of the Board of Trustees:

"Examinations for *degrees* shall close at least six weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported, by the Faculty of each, to the President of the Faculties at least four weeks before the date of commencement."

STUDENTS.**Candidates for the Degree of Master of Science.**

Name.	Residence.	Topics.
Anna S. Hazelton, B. S., 1892, Columbian.	D. C.	Mathematics.
Jessie Claire McDonald, B. S., 1888, Wellesley.	D. C.	Philosophy of History.
Stephen C. Miller, M. D., 1884, Columbian. Phar. D., 1888, Howard Univ.	Minn.	Chemistry.
Augusta M. Pettigrew, M. D., 1891, Columbian.	D. C.	German Literature and History.
Harry Albert Pressey, B. S., 1893, Columbian.	Maine.	Physics.
Herbert Louis Rice, B. S., 1893, Columbian.	Ill.	Quaternions.
Oscar John Schneider, B. S., 1893, Columbian.	Wis.	Chemistry.

Candidates for the Degree of Master of Arts.

Name.	Residence.	Topics.
Edmund Clark Hudson, A. B., 1882, Hiawasee.	Tex.	Advanced English.
E. Hilton Jackson, A. B., 1891; LL. B., 1892. LL. M., 1893, Columbian.	Va.	International Law.
John Scott Johnson, B. S., 1893, Columbian.	Tex.	Political Philosophy.

Name.	Residence.	Topics.
Anna Madeleine Letterman,	D. C.,	Advanced English.
1892. Normal College, City of New York.		
Frank Bowers Littell,	Penn.,	Theoretical Astronomy.
Ph. B., 1891, Wesleyan, Middletown.		
Mary McPherson,	D. C.,	Economics.
A. B., 1893, Wellesley.		
Henry Rogers Pyne,	Me.,	Greek.
A. B., 1893, Columbian.		
Frances Estelle Throckmorton,	D. C.,	Latin.
A. B., 1893, Columbian.		

IN ATTENDANCE.

William Hamilton,	Penn.,	Advanced English.
A. B., Moravian College, Bethlehem.		

Candidates for the Degree of Doctor in Philosophy.

Name.	Residence.	Topics.
Edward Farquhar,	D. C.,	Major, Grk.; Minors, Eng., Phil.
George Wesley Hammer,	Ala.,	Major, Hist.; Minors, Ec., Anth.
A. B., 1882; A. M., 1885, Hiwassee.		
LL. B., 1885, Univ. Alabama; LL. M., 1886, Georgetown.		
Walter Scott Harshman,	Ohio,	Major, Theo., Ast.; Minors, P.
Math., Math., Phys.		
M. S., 1892, Columbian.		
William Perry Hay,	D. C.,	Major, Zoö.; Minors, Geol., Bot.
M. S., 1892, Butler Univ.		
Albert Mayer Hilliker,	Minn.,	Major, Phil.; Minors, Hist., Phil.
B. D., 1890, Seabury Divinity School.		
Frank Hall Knowlton,	Md.,	Major, Bot.; Minors, Zoö., Geol.
B. S., 1884; M. S., 1887, Middlebury.		
Claude Augustus Oscar Rosell,	Penn.,	Major, Chem.; Minors, Phys.,
Min.		
A. M., 1881, Univ. Penn.		
LL. B., 1886, Georgetown.		
Ernest Lawton Thurston,	D. C.,	Major, Ap. Math.; Minors, G. S.,
Calc.		
C. E., 1893, Columbian.		

THE GRADUATE SCHOOL.

Recapitulation.

Students in the Graduate School	24
Students of Law	328
Students of Medicine	150
Students of Dentistry	44
Students in Arts and Sciences (College and Scientific School)	298
Aggregate	844
Students in the Preparatory School.	85
Total.	929

Geographical Distribution of University Students.

Alabama.....	5	Maine.....	14	Rhode Island.....	1
Arkansas.....	5	Maryland.....	40	South Carolina.....	10
California.....	7	Massachusetts.....	19	South Dakota.....	1
Colorado.....	2	Michigan.....	10	Tennessee.....	12
Connecticut.....	8	Minnesota.....	10	Texas.....	14
Delaware.....	4	Mississippi.....	8	Utah.....	1
Dist. of Columbia.	316	Missouri.....	10	Vermont.....	5
Florida.....	3	Montana.....	3	Virginia.....	51
Georgia.....	11	Nebraska.....	5	West Virginia.....	14
Idaho.....	1	New Hampshire.....	4	Wisconsin.....	11
Illinois.....	27	New Jersey.....	9	Wyoming.....	3
Indiana.....	7	New York.....	62		
Indian Territory.	1	North Carolina.....	5	Canada.....	5
Iowa.....	15	North Dakota.....	1	Chile.....	3
Kansas.....	9	Ohio.....	34	Japan.....	1
Kentucky.....	8	Oregon.....	2		
Louisiana.....	4	Pennsylvania.....	43	Total.....	844

DEGREES CONFERRED IN 1893.

Masters of Law.		Residence.
Name.		
John B. Abbott,		New Hampshire.
LL.B., Columbia University, 1892.		
Charles S. Albert,		Pennsylvania.
LL.B., Columbia University, 1892.		
Cyrus N. Anderson,		Mississippi.
LL.B., Columbia University, 1892.		
Wm. Du Val Brown,		District of Columbia.
LL.B., Columbia University, 1892.		
Thaddeus Cahill,		New York.
A. B.		
LL.B., Columbia University, 1892.		
W. F. Clyborne,		California.
LL.B., Columbia University, 1892.		
Charles F. Consaul,		Michigan.
LL.B., Columbia University, 1892.		
James A. Davidson,		New York.
LL.B., Columbia University, 1892.		
Walter W. Davis,		Kansas.
LL.B., Columbia University, 1892.		
Victor L. Dodge,		District of Columbia.
LL.B., Columbia University, 1892.		
E. Hayward Fairbanks,		Massachusetts.
B. S., Worcester Polytechnic Institute, 1887.		
LL.B., Columbia University, 1892.		
Theodore C. Fenton,		Pennsylvania.
Graduate United States Naval Academy, 1885.		
LL.B., Columbia University, 1892.		
D. Kelsey Fitzhugh,		District of Columbia.
A. B., Baylor University, 1887.		
LL.B., Columbia University, 1892.		
C. Eugene Footg,		Ohio.
LL.B., Columbia University, 1892.		
Richard A. Ford,		South Carolina.
LL.B., Columbia University, 1892.		
P. J. Galligan,		Iowa.
LL.B., Columbia University, 1892.		

Name.	Residence.
Alex. Grant. LL.B., Columbian University, 1892	Michigan.
J. Colfax Grant. B. S., University of Minnesota, 1890. LL.B., Columbian University, 1892.	Minnesota.
Charles J. Groseclose. A. B., Roanoke College, 1882. LL.B., Columbian University, 1892.	Virginia.
Henry A. Hayward, LL.B., Columbian University, 1892.	Minnesota.
M. D. Hensey, LL.B., Columbian University, 1892.	District of Columbia.
Daniel Higgins, LL.B., Columbian University, 1892.	Utah.
Percy B. Hills, LL.B., Columbian University, 1892.	District of Columbia.
James C. Hoce, LL.B., Columbian University, 1892.	District of Columbia.
Allan J. Houghton, LL.B., Columbian University, 1892.	District of Columbia.
Harry P. Huddleson, LL.B., Columbian University, 1892.	Missouri.
E. Hilton Jackson, A. B., Columbian University, 1891. LL.B., Columbian University, 1892.	Virginia.
G. Sherman James, LL.B., Columbian University, 1892.	District of Columbia.
John E. Laskey, LL.B., Columbian University, 1892.	District of Columbia.
F. C. Lawyer, LL.B., Columbian University, 1892.	District of Columbia.
Jesse B. K. Lee, LL.B., Columbian University, 1892.	District of Columbia.
Walter I. Lembkey, LL.B., Columbian University, 1892.	Pennsylvania.
R. L. Lerch, Graduate U. S. Naval Academy, 1883. LL.B., Columbian University, 1892.	Ohio.
P. S. Lowry, LL.B., National University, 1892.	Ohio.

Name.	Residence.
J. H. McElroy, A. M., De Pauw University, 1891. LL.B., Columbian University, 1892.	Illinois.
O. M. Mather, LL.B., Columbian University, 1892.	Kentucky.
George H. Maxwell, A. B., Syracuse University, 1888. A. M., Syracuse University, 1891.	New York.
F. P. Mendenhall, LL.B., Columbian University, 1892.	District of Columbia.
John D. Morgan, LL.B., Columbian University, 1892.	Washington.
Richard Nixon, LL.B., Columbian University, 1892.	Louisiana.
Robert E. Parker, LL.B., Columbian University, 1892.	California.
B. Kennon Peter, LL.B., Columbian University, 1892.	District of Columbia.
Samuel N. Pond, A. B., Yale, 1889. LL.B., Columbian University, 1892.	Connecticut.
W. W. Poultney, A. M., 1884. B. C. E., 1886. Ph. B., 1887. LL.B., National University, 1890. LL.M., National University, 1891.	Ohio.
J. Clarence Price, LL.B., Columbian University, 1892.	District of Columbia.
A. L. Richardson, LL.B., Columbian University, 1892.	District of Columbia.
Martin A. Ryan, LL.B., Columbian University, 1892.	Pennsylvania.
William J. Sandoz, LL.B., Columbian University, 1892.	Louisiana.
William F. Shute, John W. F. Smith, LL.B., Columbian University, 1892.	District of Columbia. District of Columbia.
Faber Stevenson, LL.B., Columbian University, 1892.	Ohio.

Name.	Residence.
Lauren J. Taylor, LL.B., Columbian University, 1892.	Kentucky.
Aug. B. Tolman, LL.B., Columbian University, 1892.	Massachusetts.
George H. Walker, LL.B., Columbian University, 1892.	Ohio.
Victor H. Wallace, LL.B., Columbian University, 1892.	Georgia.
Adolph G. Wolf, A. B., Johns Hopkins University, 1890. LL.B., Columbian University, 1892.	District of Columbia.
Robert E. Woods, A. B., Kentucky Military Institute, 1885. A. M., Hartford College, 1889. LL.B., Columbian University, 1892.	Kentucky.
Henry S. Woodward, A. B., Yale, 1890. LL.B., Columbian University, 1892.	District of Columbia.

Bachelors of Law.

Name	Residence.
A. P. Anderson,	Colorado.
T. H. Anderson,	Kentucky.
J. Walter Barber,	Indiana.
J. C. Bell,	Colorado.
O. R. Blair,	New York.
J. C. Bowen,	Michigan.
George F. Burba,	Kentucky.
James W. Byler,	Missouri.
William Irwin Campbell,	Pennsylvania.
U. S. Catlett,	Tennessee.
Green Clay,	Kentucky.
Alden M. Collins,	Virginia.
A. V. Cushman,	Massachusetts.
George F. Daggett,	Maine.
Frank E. Dennett, A. B., Bowdoin College, 1890.	Maine.
George W. Drew,	District of Columbia.
J. William Ellis, Ph. B., Cornell, 1890.	New York.

Name.	Residence
E. L. Eustaphie,	Virginia.
F. De Courcy Faust.	District of Columbia.
James A. Finch.	New York.
L. H. Finney, Jr.,	Virginia.
Albert F. Flint.	District of Columbia.
Charles L. Frailey.	Massachusetts.
A. B., Columbian University, 1891.	
Paul Trapier Gadsden,	South Carolina.
A. M., University of the South, 1891.	
Charles D. Geddes.	Minnesota.
W. G. Gideon.	Missouri.
George I. Gilbert.	Illinois.
A. B., Doane College, 1890.	
Horace D. Goodale.	New York.
Milton LeRoy Gough.	District of Columbia.
Irving H. Griswold.	Ohio.
C. A. Hansmann.	Missouri.
William E. Harvey.	Missouri.
J. B. Henderson, Jr.,	Missouri.
John A. Higley.	New York.
W. B. Hoggatt.	Indiana.
Charles E. Howe.	Pennsylvania.
Kepler Hoyt.	Wyoming.
A. B., University of Denver, 1891.	
Malcolm Hufty.	District of Columbia.
A. L. Jackson.	Texas.
Sydney R. Jacobs.	Wisconsin.
J. Burr Johnson.	Maryland.
Ernest W. Jones.	Ohio.
William H. Keller.	Pennsylvania.
A. B., Franklin and Marshall College, 1891.	
W. Maurice Kelly.	Oregon.
A. B., Princeton, 1891.	
Messmore Kendall.	Colorado.
F. Henry Kiser.	Wisconsin.
H. Lee Landers.	Maryland.
B. Peyton Legaré.	South Carolina.
B. S., Hobart College, 1888.	
J. Arthur Lynham.	Virginia.
Charles L. McCawley.	District of Columbia.

Name.	Residence.
J. T. Macey.	New York.
Walker D. Maclean.	Illinois.
A. B., Columbian University, 1891.	
R. L. Maddox.	Kentucky.
John T. Manier.	Mississippi.
B. S., A. and M. College of Mississippi, 1889.	
W. S. Maple.	Indiana.
R. Bowman Matthews.	Louisiana.
F. G. Mauldin.	South Carolina.
Graduate of U. S. Military Academy, 1890.	
George H. Maxwell.	New York.
George Clendenin Meigs.	District of Columbia.
Edward Menocal.	District of Columbia.
J. G. Meyers, Jr.	District of Columbia.
A. E. H. Middleton.	South Carolina.
R. F. Miller.	District of Columbia.
Charles S. Muir.	District of Columbia.
F. C. O'Connell.	Vermont.
William A. Pless.	Tennessee.
J. Garland Pollard.	Virginia.
John P. Pryor.	Texas.
Howard S. Reeside.	Pennsylvania.
Eugene Rhodes.	Kansas.
E. S. Rockwell.	New York.
Louis A. Rosafy.	North Carolina.
Morris E. Sabin.	Wisconsin.
Fountain F. Sams.	Illinois.
F. H. Sanford.	New York.
A. B., Yale, 1889.	
G. B. M. Schadmann.	Pennsylvania.
A. B., Racine College. 1886.	
A. M., Racine College. 1889.	
George H. Shields, Jr.	Missouri.
A. B., Princeton, 1891.	
William F. Shute.	District of Columbia.
Carroll W. Smith.	District of Columbia.
Felix O. Smith.	Vermont.
Bernard H. Taylor.	Illinois.
Frank Tharin.	South Carolina.
Corcoran Thom.	Maryland.

Name	Residence.
J. H. Thomas,	Missouri.
T. C. Thomas,	Ohio.
Edward D. Tittmann,	Missouri.
William Sydenham Torbert,	Maryland.
S. Brooks Townes,	South Carolina.
Addison C. Townsend,	Nebraska.
Ralph R. Upton,	District of Columbia.
A. B., Yale, 1892.	
M. A. Watson,	California.
Willoughby L. Webb,	Maryland.
Harry Weber,	Illinois.
Irving C. Williams,	Pennsylvania.
A. B., Ursinus College, 1891.	
Walter A. Wilson,	Ohio.
A. L. Wood,	New Jersey.
Windom S. Woodworth,	Virginia.
E. A. Wright,	Pennsylvania.
C. E., Lehigh, 1889.	
Fred. A. Wright,	Massachusetts.
A. B., Amherst, 1884.	
Herbert Wright,	Pennsylvania.
M. E., Lehigh, 1890.	

Doctors of Medicine.

Name.	Residence.
Louisa M. Blake,	New Jersey.
Fred. M. Bogan,	District of Columbia.
Frank C. Boyle,	District of Columbia.
Isaac W. Brewer,	New York.
William C. Buck,	New Hampshire.
James R. Church,	District of Columbia.
Robert A. Daniel,	District of Columbia.
Cornelius A. Harper,	Wisconsin.
Deane C. Howard,	Massachusetts.
Lincoln Johnson,	New York.
Fred. F. Jones,	Ohio.
James T. Jones,	District of Columbia.
Arthur Jordan,	California.
Cassius M. Ketcham,	Missouri.
Herbert D. Knapp,	Michigan.

Name

Van Buren Knott,
George W. Lendley,
David Lobo, M. D.,
Andrew J. Nelson,
Francis M. Nesmith,
Sofie A. Nordhoff,
Clarence G. Probert,
Theodore W. Richards,
John H. Rindlaub,
Harry W. Rollings,
Edward G. Seibert,
Fred S. Towle,
Herbert S. Town,
Walter M. Wooster,
Margaret M. York,
Charles L. Young.

Residence

Iowa
New York
Venezuela
Virginia
New York
Germany
Ohio
District of Columbia
Wisconsin
District of Columbia
Pennsylvania
Massachusetts
Wisconsin
District of Columbia
Louisiana
Pennsylvania

Doctors of Dental Surgery

Name

C. W. Appler,
W. N. Cogan,
R. L. Nall,
N. W. Pomeroy.

Residence

Maryland
District of Columbia
Kentucky
District of Columbia

Masters of Arts

Name

Eva Virginia Heth,
B. S., 1891, A. B., 1892, Columbian University
Mabel Nelson Thurston,
A. B., 1891, Columbian University

Residence

Virginia
Rhode Island

Bachelors of Arts

Name

Charles Grinnell Cogley,
Mary Charlotte Priest,
Henry Rogers Pyne,
Frances Estelle Throckmorton.

Residence

District of Columbia
District of Columbia
Maine
District of Columbia

Bachelors of Science

Name	Residence
George Vose Chandler,	District of Columbia.
Edna Anne Clark,	New Hampshire.
Lucy Edith Cogley,	District of Columbia.
Joseph Herbert Ford,	District of Columbia.
John Scott Johnson,	Texas.
Sarah Elizabeth Mason,	District of Columbia.
Daisy M. Orleman,	District of Columbia.
M. D., 1890, Columbian University.	
Annie Lewis Pierce,	District of Columbia.
Harry Albert Pressey,	Maine.
Herbert Louis Rice,	Illinois.
Oscar John Schneider,	Wisconsin.

Civil Engineer.

Name	Residence
Ernest Lawton Thurston,	District of Columbia.
Total,	211

THE COLUMBIAN UNIVERSITY.

PRESIDENT'S

ANNUAL REPORT

BOOK III

Year 1893-1894.

WASHINGTON, D. C.
JUDD & DETWEILER, PRINTERS,

1894

THE COLUMBIAN UNIVERSITY.

PRESIDENT'S

ANNUAL REPORT

FOR THE

Year 1893-1894.

WASHINGTON, D. C.
JUDD & DETWILLER, PRINTERS.

1894.

The Honorable and Reverend

The Board of Overseers and Trustees

of the Columbian University:

I have the honor to report that the number of students enrolled in all departments of the University during the scholastic year 1893-'94 was 929, distributed as follows:

In the Graduate School	24
In the Law School	328
In the Medical School	150
In the School of Dentistry	44
In the Columbian College	63
In the Coreoran Scientific School	235
In the Preparatory School	85
Aggregate	929

The number of students graduated at the end of the year is as follows:

From the Graduate School	
Doctors of Philosophy	4
Masters of Arts	8
Masters of Science	3
From the Law School:	
Bachelors of Law	81
Masters of Law	58
From the Medical School:	
Doctors of Medicine	32
From the School of Dentistry:	
Doctors of Dental Surgery	8
From the Columbian College:	
Doctor of Philosophy	1
Bachelors of Arts	5
Bachelors of Science	3
From the Coreoran Scientific School:	
Civil Engineers	3
Bachelors of Science	
Total number of graduates during the year	209

By order of the Board of Trustees the following honorary degrees have been conferred on the gentlemen named:

Theodore N. Gill, Doctor of Laws.

The Rev. C. C. Meador, Doctor of Divinity.

The Rev. A. J. S. Thomas, Doctor of Divinity.

Prof. James Seth, of Brown University, Doctor of Science.

Harry C. Davis, Doctor of Humane Letters.

The operations of the Graduate School have justified all the hopes under which it was originated and organized. The students have prosecuted their advanced studies under the direction of learned professors, and all candidates for degrees have been subjected to the strictest scrutiny. The condition of residence in Washington has been made obligatory in all cases, that the contact between the mind of the teacher and of the scholar may be so close and constant as to assure thoroughness of direction and accuracy of study at all points. In advanced study and in original research it is all-important that the directive, the regulative, and the corrective power of the superior instructor should be perpetually at the student's command, in order to assure the best possible results, and there is no inspiration like that which comes from the living mind of great teachers in quickening touch with receptive intellects. No degree has been conferred except on evidence authenticated by careful examinations.

You are aware that the rules of the University require that candidates for the degree of Doctor of Philosophy, the highest degree conferred in the School, shall offer themselves for advanced study in three topics—one major and two collateral minor subjects; shall sustain satisfactory examinations upon the three subjects which they may have selected; shall present a thesis embodying the result of original research in their major subject, and shall be prepared to defend such thesis before a board of experts.

The Doctorate Disputation required by this rule was held in the public Lecture Hall of the University on the 5th instant, when theses on the "Elements of Unity in the Homeric Poems," on an "Investigation of the Motion of the Pericentre of Deimos," one of the satellites of Mars; on the "Flora of the Laramie Group and Allied Formations," and on an "Investigation of the

Properties of Ferric Acid' were discussed and defended before a jury of experts competent in each case to pronounce judgment upon the value of the disquisition and of the original inquiry made by the writers. The Faculty of the Graduate School hope in this way to win from "mouths of wisest censure" such a confirmation of the highest degrees given under the auspices of the University as shall assure the circumspection with which they are granted.

To give a more accurate idea of the ordeal to which our candidates for the degree of Doctor of Philosophy were subjected at the Doctorate Disputation held in the public hall of the University on the 5th instant, I may say that Prof. Carl S. Grammer, of the Episcopal Theological Seminary at Alexandria, Prof. Daniel Quinn, of the Catholic University, and the Rev. Samuel Ramsey were invited to sit in judgment on the thesis presented by Mr. Edward Farquhar on the "Elements of Unity in the Homeric Poems;" that Prof. Asaph Hall, LL. D., discoverer of the satellites of Mars, Prof. William Harkness, LL. D., and Prof. J. R. Eastman, all of the U. S. Naval Observatory, were invited to criticise the paper of Mr. Walter Scott Harshman on his "Investigation of the Motion of the Pericentre of Deimos;" that Prof. Lester F. Ward, Dr. Charles A. White, and Prof. G. H. Gilbert composed the jury of experts who pronounced judgment on the thesis of Mr. Frank Hall Knowlton on the "Flora of the Laramie Group and Allied Formations," a study in paleobotany; and that the eminent chemists, Prof. Robert B. Warder, Dr. R. L. Packard, and Dr. William M. Mow, suggested to scrutiny the investigation made by Mr. Claude Augustus Oscar Rosell into the properties of ferric acid. Each of these juries joined in commending the learning and originality of the theses submitted by the respective candidates. Prof. Grammer could not join the jury to which he had been invited, whereupon his place was taken by another.

In like manner Professor Fava, at a disputation held in the Hall of the University on the evening of the 7th instant, subjected the three candidates for the degree of Civil Engineer to the scrutiny of a separate jury of experts. Each of these candidates took for the subject of his thesis a problem presented by the engineering necessities of Washington. Mr. George Franklin

Perry took for his thesis the "Protection of Washington City from Floods in the Potomac." The jury of experts invited to discuss his paper and plans was composed of Capt. G. J. Feibeger, Corps of Engineers, U. S. A., Civil Engineer M. T. Endicott, U. S. N., and George W. Littlehales, C. E. Mr. Harold Davis offered a "Solution of the Railroad Problem in Washington City," his jury of experts being Col. Bernard R. Green, Royal Inspector Haack, C. E., of the German Embassy, and J. E. Greiner, C. E., Engineer of the Baltimore and Ohio Railroad. Mr. William J. Denning submitted a thesis on the "Improvement of the Rock Creek District of Washington," a thesis which, with its estimates and accompanying drawings, was discussed before the Hon. J. Frank Aldrich, C. E., a member of the House of Representatives, Mr. C. C. Norris, C. E., and Mr. C. B. Hunt, C. E.

The Law School continues to maintain its high standing. Mr. Justice Harlan, absent from the school during the greater part of the last year because of his attendance at the "Furzeal Arbitration" in Paris, has resumed the duties of his chair. The extraordinary courses of lectures on Patent Law and on the History of Law were intermitted during the present year. I was unable, because of impaired health, to deliver my regular course on International Law, but Mr. Justice Harlan kindly assumed the duty in my stead.

The number of students enrolled in the Law School was slightly less than during the preceding year, but the Junior Class was larger than that of any former year. All the signs point to a much larger attendance during the next year than at any previous year in the annals of the School.

The time is fast approaching—indeed, it is at hand—when, in duty to the dignity of the University, in duty to the high reputation of our Law School, and in duty to the demands of the legal profession, we should establish a preliminary examination in English Literature, in English and American History, in Latin, and perhaps in certain rudiments of law as the condition of admission to the study of law in our Law School with aspiration to its degrees. Considerations like these evince the impossibility of carrying on the University as it should be carried on without an increase of its endowments. Those who wish to profit

by its lectures without regard to graduation might be allowed to enter the School without such preliminary examination.

I need not remind you that the Corporation at its annual meeting held in 1892 formally ordained as follows:

"1. That a School of Comparative Jurisprudence according to the plan already approved by the Corporation, be established as an integral part of our University system, and that the said School be formally organized during the coming year, with a view to opening at the beginning of the school year 1893-94.

"2. That the President of the Faculty be authorized, in his projected sojourn in Europe, to visit the leading universities in which jurisprudence is taught according to the comparative method, and to collect all possible information under this head for the information of the Board."

You have been already informed that in pursuance of these instructions I visited London in the months of July and August, 1892, for the purpose of conferring with T. E. Scrutton, Esq., of the London bar, and with Sir Frederick Pollock, the distinguished professor of comparative jurisprudence in Oxford University; that as a result of these conferences the way was opened for similar conferences which I was to have with Rodolphe Dareste, with Max Lechère, with V. Bogisic, and others in Paris; with Professor Scialini in Pisa; with Professor Paschioni in Modena, and with Francesco Rutini in Turin, and especially with Professor Paul Vinogradoff, of the Imperial University of Moscow, when I was suddenly recalled to Washington by the death of Professor Frisvold. At the opening of the University year in 1892-93 I reported the result of my observations in London, but it was found impracticable to establish the school for the want of an adequate endowment. That financial difficulty has not been removed, but the desirability of such a school, as the crowning apex of university studies in law, continues to excite inquiry and to attract attention, not only in the United States, but in Europe.

In such a school, as we announce in our Annual Catalogue, the codes of particular nations and of successive stages in human culture will be passed in review only so far as they mark the successive stages of human progress along the line of civil institutions after the manner of Freeman in his "Comparative Politics" and along the line of legal institutes

(after the manner of Sir Henry Sumner Maine, Scrutton, Maitland, Vinogradoff, and others). It is designed that scientific studies in comparative anthropology shall form the indispensable preliminary to the special inquiries and task-work pursued in such a scheme of advanced studies in jurisprudence, so that the laws of the clan, of the tribe, of the village community, of the Greek city-state, of the Roman Empire, and of feudal Europe will be expounded in their proper logical sequence, as preparing the way for a philosophical study of the English Common Law, of American State and Federal Jurisprudence, of International Law, of Law Reform, and of Codification.

I believe that the time is close at hand when the study of law in every enlightened country will and must be pursued in the light of universal jurisprudence, and this not for academic reasons, but for reasons growing out of the progress of the world's civilization. We all know that Lord Mansfield is commonly called the "Father of the Commercial Law of England," and this paternity is ascribed to him because under his rulings and under his decisions the Law Merchant, as he found it, underwent a new birth. It seemed to him that the Law Merchant should not be regarded as the creature of municipal statutes in each country, but should be regarded as a branch of universal jurisprudence, "resting for its character and authority not on the local customs of any particular country, but on the principles and usages of trade which common convenience and an universal sense of justice had recognized as fit to regulate the dealings of merchants in all the commercial countries of the world"—that is, his decisions moved in the realm of comparative jurisprudence, and were designed to bring about a common standard of righteousness in the mercantile law of the world, as understood and practised in England.

Pascal has truly remarked that in the earlier ages of the world there was hardly any concept of the just and the unjust "which did not change its quality in changing its climate, so that a difference of three degrees from the pole would upset all jurisprudence." Today, when the nations of the earth are drawing closer and closer together, not only in their Law Merchant, but in all their conceptions of justice and truth, we are fast approaching that stage of civilization in which the study of comparative

jurisprudence will be required as the indispensable condition of that juridical assimilation which must spring up among the civilized nations of the world. All law reform and all codification of laws must proceed from wide and comprehensive studies in the world's jurisprudence. As has been well said by Professor John F. Dillon, "there is here room and need for all. The institutional writer, the law teacher, the philosophic student, the scientific jurist, the experienced lawyer, the learned judge, the practical legislator, has each his place." It is only by the study of comparative jurisprudence—the study of the juridical thought of the world—that we can hope to reach the ideals of that scientific jurisprudence toward which men are striving, and toward which they are striving for the satisfaction of their ethical judgments as well as for the facilitation of that free interchange of thought and commodity which belongs to the close association of modern nations. The civilized nations of the world tend to-day toward an assimilation of jurisprudence which is to be part and parcel of that Reign of Universal Righteousness on the earth which was foreseen and foretold by the Hebrew prophets.

In speaking of law reform I do not refer so much to that which is effected by legislative action as to that which is effected by the action of the bench and bar. It has been well reasoned by Edmund Burke, "in whose writings," says Coleridge, "the germs of almost all political truths may be found," that "all human laws are, properly speaking, only declaratory [*i. e.*, declaratory of the facts and conditions to which they rightly apply under a sense of popular justice and popular need]; they may alter the mode and application, but have no power over the substance of original justice. The other foundation of law, which is utility, must be understood, not of partial or limited, but of general and public utility, connected in the same manner with and derived directly from our rational nature."

Hence it is that that eminent jurist, the late Dr. Francis Wharton (at the time of his death an honored Professor in our Law School), was in the habit of maintaining that "the lawyer is, from the nature of things, a law-maker;" that lawyers, by exhibiting to the bench "the illogical character or bad effects of particular precedents, cause the overruling or modifying of these precedents;" that law reform, operated in this way by the action

of the bench and bar, is a gradual and not a radical process of reconstruction, because it is "simply the adaptation of the law of the past to the conditions of the present."

That studies in historical and comparative jurisprudence are directly tributary to this species of law reform, and are the very condition of its wisdom and justice, is transparent alike from the reason of things and from the history of the beneficent changes which have been gradually brought about in the adjustments of all laws—municipal, constitutional, and international—to the necessities and the equities of changed conditions in human society.

In speaking, too, of codification I do not refer so much to that which is formal and which is effected *per saltum* in the whole body of any existing jurisprudence, like that which Justinian ordained in the Civil Law and which Bentham advocated in the English Common Law, but to that "tacit codification" which has been described by Sir Henry Sumner Maine, and which comes to ultimate expression in the works of institutional writers, who are skilled to deduce from the scattered state of case-law the principles which underlie and which unify existing and discordant precedents, and who can do this work with so much thoroughness and accuracy that their statement of these principles is accepted as authoritative by the bench. It was in this way that Grotius became the founder of International Law; that Savigny opened a new epoch in the history of German jurisprudence, and that Blackstone and Kent wrote their Commentaries. All new work of this kind must hereafter proceed from the study of comparative jurisprudence, for it will be nothing more than comparative jurisprudence solidified.

It has been found by our experience during the last year in the School of Graduate Studies that the rule which requires that candidates for the degree of Doctor of Philosophy should be able to read French and German at sight has had for its effect to encourage the study of French and German in the College and in the Corcoran Scientific School. As this same requirement would be a prerequisite to candidature in the School of Comparative Jurisprudence, we can see that the studies of such a school would be tributary to the highest and broadest University culture, as well as to professional excellence in the science and philosophy

of jurisprudence. Indeed, they are studies which might be pursued on grounds of culture alone, as they are at Oxford University in England, and so are worthy of encouragement entirely apart from their bearing on the making of jurists and law reformers.

The close relation which studies in jurisprudence have on culture is seen and enforced by College Presidents who do not share in some of our special incentives to the promotion of such studies, and who do not share in some of our facilities for their prosecution, because of our situation at the seat of the National Government.

President ANDREWS, of Brown University, has said that—

"It seems to be taken for granted that elsewhere [than in the Roman Empire] culture has been built up nearly or quite independently of legal institutions and reforms. So far is this from being the case that one may well doubt whether the tie between legal institutions and the progress of civilization was ever so close as in modern times. Few men in the last hundred years have done more for human advancement than Savigny, Bentham, John Austin, and Sir Henry Sumner Maine."

President PATTON, of Princeton College, has said that—

"It is of no little advantage to the clergyman to read the *jurid* language of St. Paul in the light of Roman law, to learn that the testamentary idea originated in the Roman mind, to see what the *ius cœc* has done for Christianity, to learn how law in great measure gave form to theological literature, and how in the mellow light of cathedral windows the marriage of jurisprudence and theology was effected."

The Common Law will ever remain the basis of all professional study of law in our Law Schools, but this study must be supplemented and clarified by the comparative method of research, because, I repeat, of the change which has been impressed on modern civilization by its world-wide extent and by the ever-closer society which is springing up among civilized States. *Ubi societas ibi ius*. In support of this view I beg leave to cite the following words of Sir FREDERICK POLLOCK:

"Within living memory the Common Law was treated merely as a dogmatic and technical system. Historical explanation, beyond the dates and facts which were manifestly necessary, was regarded as at least an idle ornament, and all singularities and anomalies had to be taken as they stood, either without any reason or perhaps oftener with a bad

one. It was an unheard of process to show that they were really natural products in the development of legal conceptions. A superior moral sense was supposed to have been combined, in the founders of the law, with a strictly logical intellect and an almost infallible intuition of practical fitness, and on this more than doubtful assumption were built up phrases of amiable optimism which had not much difficulty in passing for philosophical reflection. . . . But the scientific study of legal phenomena, such as we really find them, had no place among us : at any rate, there was no assured place for such study as distinct from the technical logic of a particular system on the one hand and the classification of legal abstractions supposed common to all systems on the other. Maine not only showed that this was a possible study, but showed that it was not less interesting and fruitful than any in the whole range of the moral sciences. At one master-stroke he forged a new and lasting bond between law, history, and anthropology. Jurisprudence itself has become a study of the living growth of human society through all its stages, and it is no longer possible for law to be dealt with as a collection of rules imposed on societies, as it were, by accident, nor for resemblances and differences of the laws of different societies to be regarded as casual."

On behalf of the Medical Faculty I have the honor to report that Dr. A. F. A. King, greatly to the regret of his colleagues, has resigned the office of Dean, which he has held for so many years with great credit to himself and with great usefulness to the Medical School, as also to the School of Dentistry after the latter came to be established at the instance of the Medical Faculty. The Medical Faculty, on accepting, with reluctance, the resignation of Dr. King as their Dean, adopted with unanimity the following resolutions :

Resolved, That the Faculty cannot accept Dr. King's resignation as Dean without expressing their appreciation of his long and valuable services to the school.

To his earnest and faithful attention, more than to any other one cause, does it owe its present prosperity.

Each and every one of us join in sentiments of highest consideration for Dr. King as Dean, Professor, and friend, and in thanks for the untiring industry and ability with which he has ever met the duties of his office.

I beg leave to join most heartily in this expression of regard for the retiring Dean, as in all my relations with him I have

always found him as courteous and considerate as he was faithful and capable.

I invite for your approval the election of Dr. D. K. Shute as Dean of the Medical School; of Dr. J. Hall Lewis as Dean of the Dental School; of Professor E. A. De Schweinitz as Secretary-Treasurer of both departments, and of the appointment of Dr. W. P. Carr as Professor of Physiology to fill the vacancy created by the death of the late Professor William Lee.

I need but call your attention to the report of Professor Munroe on the operations of the Corcoran Scientific School and the School of Graduate Studies. It is impossible for me to speak in too high praise of the efficiency which he has brought to the chair of Chemistry in the University and to the administration of these Schools.

I have the honor to lay before you a communication in which the Professors connected with the Corcoran Scientific School, through a committee, ask your permission to establish a summer school, of six weeks' duration, under the auspices of the University. The proposition has the approval of Dean Munroe as well as my own.

I print in full the report of the accomplished Principal of the Preparatory School, because you will naturally look to him for useful suggestions in revising the order of studies in that department.

I make no reference to the report of the Treasurer, which he has himself placed in your hands, but I cannot omit to express my thanks to him for assisting me in much administrative duty during the last year, when for a time my impaired health seemed to menace the necessity of an immediate retirement from all University cares.

It will be observed that I have thus far said nothing about the College proper, the academic and classical department of the University. I have purposely abstained from this topic because it is known to me that you have referred the whole subject of the College, its administration and the reorganization of its studies, to the consideration of a special committee.

During my connection with the University I have steadily labored for the upbuilding of the College, having assumed in its interest the duties of chairs which did not properly belong to

me. In this way it was that during one year I felt called to take charge of the instruction in French. After the death of Dr. Ruggles I assumed the duties of the chairs in Constitutional Law, International Law, and Economics, and continued to teach these branches, together with Psychology and Moral Science, until I was happily relieved from the chairs in Economics, Psychology, and Moral Science by the appointment of my learned colleague, Dr. Sterrett. As I found no chair of History in the College when I entered on my administration, I have felt it my duty to deliver a series of lectures on this subject from year to year. History should be made the subject-matter of a separate chair in any reconstruction of the College Faculty.

In my communication to you under date of January 17, 1894, tendering my resignation of the office of President, I submitted a conspectus of the statistics of the University in the matter of its students and teachers since 1871. As that communication was confidential, and as the statistics for the current scholastic year were then in part conjectural, and in fact were understated, I may reproduce the tables in this report. I should add that the subjoined tables have been prepared by my learned colleague, Prof. H. L. Hodgkins, who is also the Secretary of the Alumni Association of the University. The first table gives the number of students in attendance in the several departments and the aggregate number for each year.

Attendance of Students.

	Law.	Medi- cal.	Col- lege.	Prepar- atory.	Scien- tific.	Den- tal.	Grad- uate.	Total.
1871 '2	155	55	44	72				326
1872 '3	103	48	40	75				266
1873 '4	102	54	44	80				277
1874 '5	95	49	49	96				289
1875 '6	130	54	48	103				335
1876 '7	107	44	44	89				284
1877 '8	134	53	41	77				305
1878 '9	155	55	46	77				333
1879 '80	141	54	47	70				312
1880 '1	181	43	39	80				343
1881 '2	155	45	37	64				301
1882 '3	180	72	40	63				355
1883 '4	189	78	39	72				378
1884 '5	179	86	49	91	126			531
1885 '6	186	102	34	102	71			495
1886 '7	188	97	29	89	78			481
1887 '8	206	116	36	85	84	16		531
1888 '9	202	122	44	80	82	14		544
1889 '90	210	128	55	97	109	11		610
1890 '1	312	155	66	95	110	17		755
1891 '2	381	151	75	102	139	33		881
1892 '3	348	161	62	74	174	46		865
1893 '4	328	150	63	85	235	44	24	929
Total en- rollment	4,369	1,969	1,071	1,918	1,208	181	24	10,738
Average be- fore 1894	184	83	46	83	108	23		446
Increase of present at- tendance above av- erage	144	67	17	2	127	21		483

From 1821 (the date of the founding of the institution) down to 1871 (the date of my accession to the presidency) the whole number of students graduated from all departments of the institution was 1,184. The whole number of graduations from all departments of the institution from 1871 to 1894, inclusive, is 2,222. The total number of graduations from 1821 down to the present time is therefore 3,406. Subtracting names counted twice (531), because standing for graduations in two schools, we

find that the total number of our *graduates* is 2,875. Honorary degrees are of course not included here.

And the growth in the body of the Faculties connected with the several departments of the University and with the whole University has kept pace with this increase in the number of our students. The subjoined table, which has also been prepared by Prof. Hodgkins, will give the data under this head. To explain the significance of the separate columns giving the aggregate number of the Faculties under two separate heads, I may say that the first column gives the number comprised in the real teaching force of the University, including the names of certain professors who teach in more than one school. Certain professors, for instance, teach in the Dental School as well as in the Medical School. The Dean of the Corcoran Scientific School teaches chemistry in the College, in the Scientific School, and in the School of Graduate Studies. Under the head of the first column such a multiplication of duties is counted as a separate professorship in each school, which, indeed, it is in point of teaching force. Under the head of the second column all such repetitions of service are counted out, and the number stated therein represents individual professors and instructors.

Number of Professors and Instructors in the Faculties.

	Law,	Medical,	College,	Preparatory,	Scientific,	Dental,	Graduate,	Total	Total without repetitions.
1871-2	4	13	8	5				26	24
1872-3	5	13	8	5				25	25
1873-4	6	10	10	6				28	26
1874-5	5	11	10	6				28	26
1875-6	5	11	12	6				26	27
1876-7	4	10	11	6				25	26
1877-8	3	13	10	6				28	27
1878-9	2	14	10	6				28	27
1879-80	3	17	10	5				31	30
1880-1	4	15	10	5				30	29
1881-2	4	18	10	5				33	32
1882-3	4	17	9	5				32	31
1883-4	4	18	9	7				33	32
1884-5	4	21	7	8	21			57	48
1885-6	5	21	10	8	20			53	49
1886-7	5	23	11	8	14			55	48
1887-8	5	23	10	9	16	15		71	59
1888-9	7	28	9	8	16	13		76	64
1889-90	6	23	9	10	15	19		79	64
1890-1	8	24	10	10	16	19		81	69
1891-2	12	26	9	9	16	17		84	71
1892-3	12	32	13	9	27	15		103	87
1893-4	12	39	16	9	45	17	24	162	116

I beg leave to repeat what I have so often said before, that one need but study the two tables above given, showing the growth of the student attendance and the growth of the Faculty of the University, to discern at a glance the direction in which the future glory of the University must lie. It lies in the direction of professional education and of the *higher* learning—in the direction of *University* learning, properly so called; because this growth in the direction of professional education and of University learning has been accomplished by virtue of the pure felicity of our situation at the national capital—without the aid of the large endowments which would have been required to achieve the same high results elsewhere. And all these results, achieved without endowments, are but the earnest of the greater things we might have achieved if our endowments had been

somewhat adequate to our educational opportunities and facilities.

Dr. Greene, Chairman of the Executive Committee, requests me to state that he has no special report to make to you on behalf of that committee.

I have received a copy of the resolutions which you did me the honor to pass in the act of accepting the tender of my resignation of the Presidency of the University in January last. For the kind offer you then made to grant me an immediate respite from all administrative duty because of my impaired health, I sincerely thank you. I have not found it necessary to avail myself of your kind consideration, but I am none the less grateful for it. For my election as President Emeritus of the University, to take effect on my retirement from the active duties of the Presidency, I tender my heartfelt acknowledgment.

For all the courtesies and kind consideration received at your hands during my long term of service, I here beg leave to testify and record my thanks. During my long term of service I have doubtless committed many mistakes. I have held from the beginning to the end of my administration that to labor for the establishment and development of a University, in the full and true sense of that term, "is one of the noblest and most important tasks ever imposed on a community or a set of men." As President Gilman has truly said,

"It is an undertaking which calls for the exercise of the utmost care, for combination, cooperation, liberality, inquiry, patience, reticence, exertion, and never-ceasing watchfulness. It involves perplexities, delays, risks. Mistakes cannot possibly be avoided. Heavy responsibility is never absent. But history and experience light up the problem. Hope and faith give animation to the builders when they are weary and depressed."

I fervently hope that my successor, in building on the foundations which have been laid, will find that these foundations are as broad and solid as you could make them with the means at your command.

All of which is respectfully submitted.

JAMES C. WELLING, *President*

THE COLUMBIAN UNIVERSITY.

June 12, 1894.

REPORT OF DEAN OF THE MEDICAL SCHOOL.

THE MEDICAL SCHOOL, THE COLUMBIAN UNIVERSITY,

WASHINGTON, June 7, 1894.

To JAMES C. WELTING, *President*.

SIR: In compliance with your request that I should give a brief history of the Medical College in connection with my report on its condition and prospects, I beg leave to say:

After the destruction of the Medical College building by fire in 1861, the Medical School was temporarily suspended and had to make a new beginning, while competing schools meanwhile largely increased their patronage and influence.

The College books and circulars contain no definite statement as to the number of students in attendance from 1861 to 1865, though during these years attempts were made to revive the functions of the Institution. During the session of 1865-'66 the number of students was seventeen only. At this time the lectures were given in the old church structure on Fifth street between D and E streets northwest, afterwards converted into the Columbian Law building.

In 1867 the Medical Faculty was able to occupy its present building, No. 1325 H street northwest, which had been generously given for the purpose by the late Mr. W. W. Conneran, and at the time when given was occupied by the United States Army Medical Museum. On the Museum being removed to Ford's Theatre building, the Medical Department entered its new home. This was a great step in advance for the prosperity of the School, and, under the guidance of the then dean, Dr. John C. Riley, whose loyal devotion to the interests of the College contributed so largely to its advancement, the Institution gradually grew in prosperity until the unfortunate decease of Dr. Riley, in February, 1879. Dr. Riley was succeeded in the office of Dean by Dr. A. E. A. King. At this time the number of students had reached fifty-five (55). Dr. King continued to act as Dean from 1879 until May, 1891, when he tendered his resignation. The following events of interest in the history of the Medical and Dental Departments during the last fifteen years are extracted from the College records:

Requirements for Matriculation in the Medical School. Formerly no educational qualification was necessary for matriculation in the Medical Department. This was true of nearly all medical schools throughout the country. During the session of 1884-'85 matriculants were required to show that they were fitted by previous education for the study of medicine, and to this end they had to submit to an examination, or in lieu thereof present a satisfactory certificate of their attainments from some

college, seminary, or high school. Subsequently the *kind* of examination was more specifically defined, and for the last few years it has comprised the following subjects, to wit:

1. English Composition.
2. Translation of easy Latin prose.
3. Elements of Algebra or Higher Arithmetic.
4. Elementary Physics.

Requirements for Graduation in the Medical School.—Up to the session of 1878-'79 the Medical School, like most others in the United States at that time, required attendance upon only two courses of lectures (each of five months' duration) and a preceptor's certificate of three years' study of medicine before admitting the student to examination for his degree.

For the session of 1879-'80 the Faculty made *three* courses of lectures necessary for graduation, and, while by no means the first, this College was *among* the first medical schools in the country to adopt the three-year requirement. It was feared this new departure might reduce the number of students and swell the classes of competing colleges, but in the interests of better medical education, it was decided to adopt it nevertheless; and while the number of students at the next session reached fifty-six (56), practically the same as that of the year before, most of the old students remaining over, eleven only having graduated, the next succeeding session—that of 1880-'81—registered only forty-four (44) pupils; but it never sank to this low figure again. During the next five years, from 1881 to 1886, the number of students was respectively 52, 80, 78, 84, 106. Never before in the history of the College had so many as one hundred students matriculated in one session. Three of them were women.

For the session of 1892-'93 the regular winter course of lectures was extended, for the first time, from *five* to *seven* months—that is, from October to April, *inclusive*. For about twenty years prior to this time the winter course had ended on the last day of February and was supplemented by a "Spring" or "Summer" course, extending through April and May. The lecturers in this "Spring" course, when it first began, were, some of them, Professors in the regular Winter term, some of them Demonstrators or Adjuncts, and a few Specialists on Diseases of the Eye, Throat, &c. Year by year additional specialists were secured to take part in the Summer course, until finally it was given *entirely* by special instructors skilled in some particular department of practice.

With the prolongation of the winter term from five to seven months in 1892, the summer or spring course was abolished and the several specialists gave and still continue to give their several courses of lectures at various periods during the regular winter term.

One other reform: A still further requirement for graduation yet remained to be inaugurated, viz., the requirement of *four* courses of lectures in place of *three*. This was adopted in April, 1893, and put into practical operation for the first time during the session of 1893-'94, just closed.

The enforcement of this regulation (adopted thus early by only a very few of the leading medical schools) unquestionably contributed to reduce the number of students. Nevertheless the session closed with a register of 150 students and a graduating class of 34. The number of students in attendance during the successive years from 1886 (previously stated) to the present, 1894, was respectively as follows: 98, 117, 123, 128, 158, 152, 164, 150.

The Admission of Women.—In 1884, after prolonged consideration and strenuous opposition by a part of the Faculty, a bare majority was reached in favor of the admission of women to the Medical School. For the sake of harmony the vote was made unanimous, and authority was asked and obtained from the Board of Trustees of the University to allow their admission, subject to the same rules and with the same privileges in all respects as were accorded other students. The first women were regularly matriculated during the session of 1884-85, and the first woman was graduated three years thereafter, in March, 1887. During the summer of 1892 the Medical Faculty (for reasons embodied in a memorial presented to the Board of Trustees) asked and obtained permission to discontinue the admission of women to the Medical School. This was accordingly done, and no more women were admitted. A few of those who had previously matriculated still (1894) remain, awaiting graduation.

Building Improvements and Finances.—In 1887 the Medical Faculty obtained from the Columbian University a loan of ten thousand dollars (\$10,000), to be expended on the Medical College Building with a view to enlarge the rooms for practical demonstrations in anatomy and chemistry and to organize and put in operation a Dental Department, all of which was accomplished, though the expenditure amounted to about three thousand dollars (\$3,000) more than the ten thousand loaned by the University. The Faculty undertook this loan with the full assurance and hope that the burden of debt would be relieved as soon as the University obtained money by donation or otherwise, which was confidently expected—an expectation, however, not yet realized. On this loan the Faculty pay the University five (5) per cent. per annum interest, and also an annual payment of two hundred and fifty dollars (\$250) toward a sinking fund for the extinction of the debt.

Shortly after this extraordinary expenditure the Faculty was called upon to negotiate a still further loan of two thousand dollars (\$2,000) from the University in order to pay off certain "back taxes" and accrued penalties thereon, which latter had been accumulating many years prior to the time at which the College property became legally exempt from taxation. The amount of taxes and penalties was something over nineteen hundred dollars (\$1,900). For the loan with which to pay it off the Faculty was to pay the University five (5) per cent. per annum interest and five hundred dollars (\$500) annually until the debt was extinguished. These stipulations were faithfully adhered to, and consequently in four

years the two thousand dollars (\$2,000) was returned to the University, with interest as above stated.

During the summer of 1893 and after several years of fruitless effort to obtain donations of money to still further enlarge its building for the purpose of providing improved facilities for laboratory teaching in chemistry, histology, and bacteriology, which, in accordance with the requirements of modern medical education, had become a pressing necessity, the Faculty negotiated with the University for an additional loan of five thousand dollars (\$5,000), and for which it was required to pay six (6) per cent. interest annually, besides an annual payment of five hundred dollars (\$500) toward a sinking fund for the extinction of the debt. The Faculty agreed to these terms, and during the vacation of 1893 the money was obtained and expended in reconstructing the stables in the rear of the College building into rooms for practical anatomy and minor surgery, while the former dissecting rooms were remodelled into laboratories for chemistry, histology, and bacteriology. New chairs, with arm desks, were also provided in the amphitheatre in place of the old wooden benches; electric lights were introduced into all parts of the building, and with the purchase of expensive microscopes and their appurtenances for high-power work in histology and bacteriology, together with chemical materials and apparatus, the total expenditure exceeded the loan of five thousand dollars (\$5,000) by something over five hundred dollars (\$500). Thus the Medical Faculty have contributed to the permanent belongings of the University during the last seven years about twenty thousand dollars (\$20,000), or will have done so when the entire indebtedness is paid off, and even now the University receives interest on the debt in the same manner as it does on its other invested capital. The hope of relief from the burden of these loans, so often held out to the Medical Faculty, seems as far as ever from realization.

The Dental Department.—The Dental School began its first session—that of 1887-'88—with sixteen students, and had four graduates. Dr. A. F. A. King was elected Dean. During the remaining six years, up to the close of the session of 1893-'94, the number of students for each successive session was respectively as follows: 13, 14, 19, 33, 44, 45; and the number of graduates for the same periods was respectively 3, 5, 2, 5, 4, and 8. The Dental School admitted women and discontinued their admission at the same time as did the Medical Department. It graduated two women only. The School conducts and supports a Free Dental Infirmary in the College building from October 1 to June 30, where ample opportunity is afforded the students for practical instruction and in which the poor obtain the services of skilled operators without charge except cost of material. Already this School is pinched for lack of room and painfully in need of having its Prosthetic Laboratory enlarged and the number of its operating chairs increased. How this is to be accomplished within the already crowded medical building is a difficult problem to solve.

The present condition and future prospects of the Medical and Dental Schools may be inferred from the statements contained in the letter of resignation of Dr. King, the retiring Dean, which is as follows.

1315 MASS. AVE. N. W.,
WASHINGTON, D. C., May 1st, 1892.

Gentlemen of the Medical Faculty:

I hereby tender you my resignation as Dean of the Medical Faculty of the Columbian University, to take effect at once or as soon as my accounts can be settled up for the session of '91-'92, just concluded.

While I relinquish this position with a pronounced sentiment of reluctance on account of my pleasant relations with the students and yourselves during the last fifteen years, it is nevertheless incumbent upon me, for various reasons, to take this step.

It is gratifying to us all to know that the School has grown since 1879 from 55 students to about three times that number, and that the Institution has improved and extended its teaching facilities, as far as it was able to do, in accordance with the requirements of the times.

The prosperity of the Institution, in my opinion, has been chiefly due to the earnest and conscientious labors of its teachers, and the reputation it has acquired may be largely ascribed to the Faculty having persistently refused to adopt what may be called "questionable methods" of obtaining students.

The recently adopted stricter requirements for matriculation and graduation have been faithfully carried out, and the conduct of the Institution has been administered more, perhaps, in accordance to principle than profit, but such a foundation having been laid forms the best sort of business basis for future prosperity.

The ingredient of discord that grew out of the "woman question" has been finally adjusted to our satisfaction.

We have successfully weathered the initiation of the "four-year" system. Our burden of financial indebtedness is being conscientiously liquidated according to contract.

Our relations with the various hospitals of the city are as satisfactory as we can desire, when compared with those of competing schools.

If we still hold together with still more earnest cooperation and utilize the zeal brought into the Faculty by the younger men here recently added to our number, there can be no question that further prosperity will be our recompense.

I remain, very truly yours,

A. F. A. KING, *Dean.*

Dr. D. K. Shute was elected Dean of the Medical School and Dr. J. Hall Lewis Dean of the Dental School, while Prof. E. A. de Schweinitz was elected Secretary-Treasurer of both departments.

All of which is respectfully submitted.

A. F. A. KING,
Retiring Dean.

REPORT OF DEAN OF THE CORCORAN SCIENTIFIC SCHOOL.

CORCORAN SCIENTIFIC SCHOOL, THE COLUMBIAN UNIVERSITY.

WASHINGTON, D. C., *June 7, 1894.*

DR. J. C. WEDDING,

President of the Columbian University.

SIR: I have the honor to render the following report on the condition of the Corcoran Scientific School during the academic year 1893-1894.

It is gratifying to be able to say that in spite of the unusual commercial depression existing during the past year the School has shown a decided gain over previous years, both in the number of students in attendance and in the receipts, as demonstrated in the following tables.

Number of Students.

Year	Number	Gains
1885	126	—
1886	71	—55
1887	78	4
1888	84	6
1889	82	—2
1890	109	27
1891	110	1
1892	139	29
1893	*174 169	30
1894	*235 214	45

It will be noticed that the grand total of students in the School for 1893 is given at 174, but this included three candidates for the Ph. D. and two for the M. S. degrees. As candidates for these degrees, though first included in the Scientific School, are now entered only in the Graduate School, these five students are deducted from the list for that year. Likewise the grand total for 1894 is given at 235; but as twenty-one of these were students attending a brief special course of lectures in chemistry, they are omitted from the final estimate used in showing the growth of the School.

Receipts for Tuition

Year	Total	Gain
1885	\$3,569 35	
1886	5,390 34	
1887	4,113 25	\$1,820 90
1888	3,488 04	- 1,277 09
1889	4,016 49	- 625 21
1890	5,596 38	528 45
1891	4,386 37	420 11
1892	5,920 98	789 99
1893	7,132 04	1,534 61
1894	8,951 00	1,241 06
		1,818 96

This table exhibits remarkable fluctuations, due, so far as I can, on close inquiry, discover, to the existence of the "special-student" system, for while under this system the enrollment may be large, the receipts may normally be relatively small, and they may be less, under the prevailing method of collecting fees, from the fact that the special student, having no definite goal to reach, is tempted as his task becomes difficult, or he falls behind for any reason, or when social alliments beset him, to drop his study. One method for diminishing this shrinkage lies in the enforced prepayment of dues, and it is the intention to do this except in specially deserving cases. A far better method for securing persistent work is found in the encouraging of the students to enter full courses of study leading to the bachelor's degree. It was stated in my last report that it was the policy of the Faculty thus to encourage students, and the results of this policy are shown in the following table.

Candidates for Degrees

	1893	1894
Civil Engineer	19	8
Electrical Engineer	8	1
Bachelor of Science	14	46
Total	41	55

Since in the organization of the Graduate School it was directed that students entering in 1893 as candidates for Engineering degrees should pass one year in study in that school after securing their B. S. degree, the number appearing in the above list will become smaller as those entered under the old rules complete their required work.

It may be of value also to note here the relative number of graduates,

<i>Graduates</i>		1893	1894
Civil Engineers	.....	1	3
Bachelors of Science	.....	6	3
Total	.....	7	6

Acting on the experience gained in the operation of the school during the year just closing, the courses of study leading to degrees have been revised, and four new ones, viz., Geology and Mineralogy, Architecture, Finance and Economics, and Language and Literature, have been added; the departments have been increased from sixteen to twenty one; the sub-department of Advanced English has been added to English, and of Italian to Romance Languages; the number of special topics offered has been increased from 116 to 134, and of instructors from 43 to 45.

Especial attention is called to the course in Architecture, since Washington offers a particularly attractive field for the pursuit of this profession and furnishes an unusual variety of interesting examples for study; to the course in Finance and Economics, as it is at the National Capital that the greatest accumulation of recent data is to be obtained and the most frequent opportunity for observing the results of the application or violation of economic laws occurs; and to the course in Language and Literature, as it marks in several respects a new departure in the study of the science of language as presented to the undergraduate and invites to our school a class of students of a different habit of mind and previous training from that which our present curriculum attracts.

The distribution of the work among the different departments is shown in the following tables.

Students in Different Subjects

Architectural Drawing	37
Freehand Drawing	25
Machine Drawing	8
Mechanical Drawing	47
Topographical Drawing	2
Astronomy	4
Botany	1
General Chemistry	50
Analytical Chemistry	13
Assaying	9
Civil Engineering	16
English	62
Economics	6
Finance	6
Electricity	7

Physics.....	15
French.....	44
Spanish.....	6
Geography.....	2
Geology.....	16
Mineralogy.....	9
Blow-piping.....	5
German.....	50
Latin.....	8
Mathematics.....	88
Philosophy.....	7
Psychology.....	5
Zoology.....	1

As remarked in my previous report, the numbers here exhibited are no criterion by which to judge of the work of the instructor, since he must expend as much time and effort on a class of one student as upon a class of considerable size.

While the data above presented demonstrate the continued success of the School, the future is still more promising, for although but just completing its tenth year and having no resources but those of its talented teachers, the total enrollment of the School for the present year is forty-one in excess of the combined enrollment of the Medical and Dental Schools and but twenty-two less than the undergraduate enrollment in the Law School. This comparison is not, however, justified except as between candidates for degrees, but as the Columbian Scientific School offers courses of study leading to more than twenty distinct professions, besides requiring each of its graduates to pursue certain courses in pure culture, the School should, if properly fostered, have in the near future an enrollment of candidates for degrees exceeding in number that of all the other professional schools combined, and every effort should be made to supply it with the means and facilities necessary to attain this result. There is as a result of the present growth a demand for more room, and it is urged that the rooms still unoccupied for teaching purposes be properly equipped for this purpose. In addition I would recommend that the sewerage system of the chemical laboratory be replaced, that the stability of the chemical lecture room be determined; and that the ladies' toilet-room, which has been a source of complaint, be put in a proper sanitary condition and made an attractive study room for women students.

The Scientific School is the offspring of the Columbian College, and it has from the outset depended upon the latter for its permanent nucleus of experienced teachers and for its abiding place. Its continued existence has been largely due to the fact that this permanent body is at hand to maintain the customs, perpetuate the traditions, and attend to the details of management common to every such institution, while the

availability of these men for such duty is rendered possible through their connection with the College. The success of the School has been assured by the benevolence of the many scientific men who have contributed their learning, experience, and personal endeavor and enriched us by the lustre of their reputations won in special fields of research. I sincerely hope that strenuous efforts may be made to supplement these valuable contributions by donations of money with which to endow the professorships and to supply the many much-wanted facilities for instruction and demonstration.

We have during the past year received the following gifts:

Two thousand dollars for endowing the Mary Lowell Stone Scholarship, which is founded as "a memorial to a woman student of science, from a woman, for women students of science;"

A three-quarter kilowatt Edison dynamo, from the General Electric Company;

A Whitney ammeter and voltmeter, from the Whitney Company, of Boston, Mass.;

Switches, sockets, and other electrical specialties, from the Hammond, Cleat, and Lora Electrical Companies;

A large collection of valuable organic dyestuffs, from the Treasury Department;

A fine collection of organic coloring matters, from Wm. J. Matheson & Co., Limited, New York;

A collection of varnishes, from the Celluloid Zapon Company, of New York;

A Babcock Milk Tester, from the Vermont Farm Machine Company, Bellows Falls, Vt.;

And the loan of several hundred dollars' worth of chemical apparatus, from Dr. T. M. Chataud.

Efforts are now being made to raise a scholarship fund of \$2,000 as a memorial to Edward T. Fristoe, the first Dean and Professor of Chemistry of this School, and \$350 have been thus far subscribed for this purpose.

Efforts are being made to raise a fund of \$1,000 for the equipment of a mechanical and repair laboratory, which is most urgently needed in the School, and \$225.50 have thus far been subscribed for this purpose.

It is earnestly hoped that these efforts will soon be completely successful.

On learning of your resignation of the Presidency of the University the Faculty of this School assembled and formulated resolutions expressing their high esteem for your learning, your talents, and your character and their regret that your ill health had compelled you to sever the relations which had so long and happily existed between them and you and which had proved of such great value to them and to the school. They directed that these resolutions should be engrossed and presented to you.

I have complied with the instructions of the Faculty in this regard, but I desire to add here that in the frequent interviews and consultations consequent on our official positions I have received at your hands such kindly consideration, such courteous attention, such hearty and sympathetic support, and so wise counsel that your resignation brings to me a feeling of special personal loss.

Yours very respectfully,

CHARLES E. MUNROE, *Dean*.

REPORT OF DEAN OF THE GRADUATE SCHOOL.

GRADUATE SCHOOL, THE COLUMBIAN UNIVERSITY,

WASHINGTON, D. C., *Jan 8, 1894*

J. C. WELLES, LL.D.,

President of the Columbian University.

SIR: I have the honor to present the first annual report of the Dean of the School of Graduate Studies.

The School opened October 5, 1894, with an address by the President of the University, on the Science of Universal History, and with twenty-four students enrolled as follows:

Candidates for M. S.	7
Candidates for A. M.	9
Candidates for Ph. D.	8
	<hr/>
	24

Many more applicants appeared, but were unable to satisfy the conditions for admission fixed by the Corporation of the University, or they were ineligible through non-residence. Of those admitted fifteen have completed the prescribed work, satisfied the required conditions, and been recommended for degrees as follows:

For Master of Science	3
For Master of Arts	8
For Doctor in Philosophy	4
	<hr/>
	15

A very interesting and novel feature of the year's work and one which passed off in the most acceptable manner was the Doctorate Disputation held June 5, according to the following program:

Doctorate Disputation.

THE COLUMBIAN UNIVERSITY, *June 5, 1894.*

Thesis: Elements of Unity in the Homeric Poems.

By EDWARD FARQUHAR.

BEFORE

Rev. Prof. CARL E. GRAMMER.

Prof. Dr. DANIEL QUINN.

The Rev. SAMUEL RAMSEY.

Thesis. Investigation of the Motion of the Pericenter of Deimos.

By WALTER SCOTT HARSHMAN.

BEFORE

Prof. ASAPH HALL, U. S. N.

Prof. WILLIAM HARKNESS, U. S. N.

Prof. J. R. EASTMAN, U. S. N.

Thesis. The Flora of the Laramie Group and Allied Formations.

By FRANK HALL KNOWLTON.

BEFORE

Prof. LESTER F. WARD

Dr. CHARLES A. WHITE.

Dr. G. K. GILBERT.

Thesis. Investigation of the Properties of Ferric Acid.

By CLAUDE AUGUSTUS OSCAR ROSELL.

BEFORE

Prof. ROBERT B. WARDER

Dr. R. L. PACKARD.

Dr. WILLIAM M. MEW.

The University was fortunate in securing the services of acknowledged experts in attacking the theses, and it is gratifying to report that each of the candidates passed this trying ordeal to the complete satisfaction of the experts.

Since in the creation of the Graduate School the University has become such in fact as well as in name, it seems fitting that the Corporation should now fix by regulation the ceremonies attending the conferring of degrees.

I beg also to suggest that as, according to my understanding of it, only bachelors' degrees are hereafter to be conferred in the Columbian College and in the Corean Scientific School, the Faculties of these institutions be authorized to strike out the words "and Master of Arts" "and for the degree of Master of Arts" as they appear on pages 66 and 99 of the University Catalogue for 1893-1894.

I desire also to suggest here the propriety of the Faculty of the Graduate School offering to Fellows and Scholars of other universities, who might desire to pursue their researches amid the rich and unique material abounding in Washington, academic connections and supervision during their stay here, such privileges, however, being protected by suitable conditions and restrictions.

Permit me, honored Sir, in closing my report to offer you my warmest congratulations on seeing realized in this Graduate School the plans for advanced work which you presented in your Inaugural Address in 1871, and for the prosecution of which you have since constantly labored.

Very respectfully submitted.

CHARLES E. MUNROE, *Dean.*

REPORT OF PRINCIPAL OF PREPARATORY SCHOOL.

THE PREPARATORY SCHOOL, Jan 2, 1894.

To President Welling.

SIR: I have the honor to submit the following report for the school year 1893 '94.

I. Eighty five (85) students have been enrolled during this session. The fact that the number 100 of previous years was not reached is due, in my judgment, to the depression of business which has existed for ten months.

II. There has been but one case meriting severe discipline; with this exception, the conduct of the students has been excellent.

III. The work done in the various classes has been good, but I trust that the time is not far distant when we shall either raise the requirements for admission or increase the number of years in the school course to six, that of nearly all the leading fitting schools of this country and England. At present our lowest class is on the same level as the sixth grade of the public schools, and to cope successfully with the public-school course we must accomplish in four years as much as in the seventh and eighth grades and the High School is extended over a period of six years.

IV. We are endeavoring to make our courses conform to those proposed in the report of the Association of Colleges and Secondary Schools of the Middle States, and improvements have been made, especially in the English department, in which I require the reading of a number of English and American classics and an examination upon some one of the same.

V. With a view to economy, as well as to improvement in instruction, I would most respectfully suggest a partial reorganization of the School Faculty. Should such reorganization be, in the judgment of the corporation, desirable, and should the matter be referred, with power to act, to the Committee on the Preparatory School, as is, I think, the custom of our governing body in similar cases, I shall be glad to submit to that committee a number of plans, which the limited space of this report prevents me from presenting herewith.

Very respectfully yours,

A. P. MONTAGUE, *Principal.*

CATALOGUE

THE COLUMBIAN COLLEGE
PREPARATORY SCHOOL,

WASHINGTON, D. C.,

FOR THE ACADEMIC YEAR 1893-'94.

FROM THE UNIVERSITY PRESS.

JUDD & DETWEILER,
PRINTERS TO THE UNIVERSITY AND TO THE SCIENTIFIC SOCIETIES
OF WASHINGTON.

1894

The Columbian University,

WASHINGTON, D. C.

Collegiate, Scientific, Professional, and Graduate Instruction is given in the Columbian University in six departments: The COLUMBIAN COLLEGE, the NATIONAL MEDICAL COLLEGE, the SCHOOL OF DENTISTRY, the COLUMBIAN UNIVERSITY LAW SCHOOL, the CORCORAN SCIENTIFIC SCHOOL, and the SCHOOL OF GRADUATE STUDIES.

Besides the foregoing higher departments, the University has under its management a Preparatory School, in which students are prepared for College, for the Military Academy at West Point, or for the Naval Academy at Annapolis

For catalogues address The Registrar of the University.

For other information address The President of the University

CATALOGUE
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THE PREPARATORY SCHOOL.

CALENDAR.

CURRENT SCHOOL YEAR.

1893.	Sept.	11-16.	— Examination of new scholars.
	Sept.	18.	— The First Term commences.
	Sept.	25.	— Regular Marks begin.
	Oct.	23.	— First Monthly Report rendered.
	Nov.	20.	— Second Monthly Report rendered.
	Nov.	30.	) Thanksgiving holidays.
	Dec.	1.	
	Dec.	23.	— Third Monthly Report rendered.
	Dec.	25.	) Christmas holidays.
1894.	Jan.	2.	
	Jan.	23.	— Fourth Monthly Report rendered.
	Jan.	29-31.	— Intermediate Examinations.
	Feb.	1.	— Marks of Second Term begin.
	Feb.	22-23.	— Washington's Birthday—holiday.
	March	2.	— Fifth Monthly Report rendered.
	March	23-26.	— Good Friday and Easter Monday—holidays.
	March	31.	— Sixth Monthly Report rendered.
	April	28.	— Seventh Monthly Report rendered.
	May	25.	— Eighth Monthly Report rendered.
	May	28.	) Final Examinations.
	June	9.	
	June	11.	— Public Closing Exercises.

NEXT SCHOOL YEAR.

1894.	Sept.	17-22.	— Examination of new scholars.
	Sept.	24.	— The First Term commences.
	Oct.	1.	— Regular Marks begin.
	Oct.	27.	— First Monthly Report rendered.
	Nov.	24.	— Second Monthly Report rendered.
	Nov.	29-30.	— Thanksgiving Holidays.
	Dec.	22.	— Third Monthly Report rendered.
	Dec.	24.	) Christmas Holidays.
1895.	Jan.	1.	

1895.	Jan.	19.	—Fourth Monthly Report rendered.
	Jan.	21-31.	—Intermediate Examinations.
	Feb.	1.	—Marks of Second Term begin.
	Feb.	22.	—Washington's Birthday—holiday.
	March	2.	—Fifth Monthly Report rendered.
	March	30.	—Sixth Monthly Report rendered.
	April	12-15.	—Good Friday and Easter Monday—holidays.
	April	27.	—Seventh Monthly Report rendered.
	May	25.	—Eighth Monthly Report rendered.
	May	27.	} Final Examinations.
	June	7.	
	June	10.	—Public Closing Exercises.

THE PREPARATORY SCHOOL.

Committee of the Trustees on the Preparatory School:

HON. J. ORMOND WILSON, CHAIRMAN,
PROFESSOR OTIS T. MASON,
MR. S. W. WOODWARD.

Corps of Instructors:

ANDREW P. MONTAGUE, A. M., PH. D., PRINCIPAL.
Instructor in English.

JOHN JAMESON CHICKERING, A. M., LL. M., ASSOCIATE PRINCIPAL.
Instructor in Mathematics and Natural History.

HOWARD L. HODGKINS, A. M., PH. D.,
Instructor in Physics.

LEE D. LODGE, A. M., PH. D.,
Instructor in French.

E. HILTON JACKSON, A. B., LL. M.,
Instructor in English and Latin.

WOOLSEY ASPINWALL,
Instructor in English and History.

HENRY R. PYNE, A. B.,
Instructor in Greek.

E. C. TOWNSEND,
Instructor in Elocution.

E. B. HAY, A. M., LL. M.,
Instructor in Penmanship and Book-keeping.

F. R. FAVA, JR., C. E.,
Instructor in Drawing.

Greek: White's *Beginner's Greek Book* and Crosby's *Xenophon's Anabasis*.

Physiology: Steele's *Hygienic Physiology* (enlarged edition).

Botany: Gray's *How Plants Grow*.

Map Drawing.

THIRD YEAR, SECOND CLASS.

Reading: Selected Readings: Irving's *Sketch-Book*; Mahaffy's *Old Greek Life*.

Spelling: Westlake's *3,000 Practice Words*.

Grammar: Hart's *English Grammar and Analysis*.

American Literature: Smyth's.

Geography: Houston's *Physical Geography*.

Arithmetic: Hobbs's *Academic Arithmetic*.

Algebra: Wentworth's *School Algebra*.

History: Anderson's *General History*.

Latin: Harkness's *Latin Grammar*; Original and Selected Exercises; Chase & Stuart's *Cæsar*; Chase & Stuart's *Vergil's Æneid*.

Greek: Goodwin's *Greek Grammar*; White's *Beginner's Greek Book*; Harper's *Greek Prose Composition*; Crosby's *Xenophon's Anabasis*.

FOURTH YEAR, FIRST CLASS.

Reading: Scott's *Ivanhoe* and *Talisman*; Dickens's *Tale of Two Cities*; Longfellow's *Miles Standish*.

Spelling: Westlake's *3,000 Practice Words*; Selected Words.

Civil Government: Macey's.

Rhetoric: Genung's *Outlines of Rhetoric*.

History: Myers's *History of Rome*; Myers's *Eastern Nations and Greece*.

Latin: Harkness's *Latin Grammar*; Selected and Original Exercises; Chase & Stuart's *Vergil's Æneid*; Chase & Stuart's *Cicero's Orations*; Wilkins's *Primer of Roman Literature*.

Greek: Goodwin's *Greek Grammar*; Harper's *Greek Prose Composition*; Crosby's *Xenophon's Anabasis*; Seymour's *Homer's Iliad*; Jebb's *Primer of Greek Literature*.

Geography: Van Kampen's *Ancient World*.

French: Edgren's *French Grammar*; Super's *French Reader*; Fontaine's *Historiettes Modernes, Tome II*.

Algebra: Wells's *Academic Algebra*.

Geometry: Wells's *Plane and Solid Geometry*.

Physics: Avery's *First Principles of Natural Philosophy*.

In all classes: Penmanship, Compositions, Declamation, and Book-keeping (optional).

Special Exercises.

From time to time the students assemble in the Study Hall and listen to debates, which are conducted by members of the higher classes who have prepared themselves for these discussions; occasionally all of the students are called together and the instructors question them upon the subjects studied in the School and upon current topics; and now and then gentlemen prominent in literary, scientific, and business circles address the School. Patrons and other friends are usually invited to be present at all of these exercises.

Literary Society.

The Hermesian Society, composed of students of the two higher classes, meets weekly in a hall assigned to it by the authorities of the School for the purpose of practising debate and for improvement in composition.

The society is under the general supervision of the instructors, but this supervision never takes the form of disagreeable interference.

This association gives two medals—one for excellence in debate, the other for excellence in composition; and these prizes are publicly awarded at the end of the session.

"The Boston Boys."

Some years ago the Preparatory School received from one of the benefactors of the Columbian University, W. W. CORCORAN, LL. D., a superb painting, "The Boston Boys," by Henry Bacon. This beautiful ornament of the School hangs in the main room, and is a delight to the eye as well as an incentive to patriotism.

Annual Prizes.

The Regular Prizes of the School consist of First and Second Scholarship Medals in each class.

Gold Medals are also given to those students who have been blameless in deportment and against whom there is no record of absence or tardiness during the entire session.

Through the liberality of the late Mr. Samuel Norment, President of the Central National Bank of Washington, the authorities of the School will award annually three prizes (\$25, \$20, and \$15) to the students whose scholarship, combined with irreproachable conduct, shall entitle them to be considered respectively the First, Second, and Third Honor Boys of the School.

Special Annual Prizes.

The following prizes are annually offered as rewards of special excellence in particular branches of study:

1. The Jackson Gold Medal, for excellence in the Latin Language.
2. The Roome Gold Medal, founded in honor of the lamented and scholarly Dr. Edward Roome, for excellence in the Greek Language, given by Mrs. Lillian K. Roome.
3. The Townsend Gold Medal, for excellence in Elocution during the session.
4. The Gold Medals for excellence in Declamation at the Commencement, given by Mr. B. H. Warner.
5. The Cuthbert Gold Medal in History, founded in honor of the late distinguished Vice-President of the Corporation of the University.

Honor Roll—Session 1892-'93.

FOR HIGH GRADE OF SCHOLARSHIP.

First Class—First Prize: J. H. Wynne.

Second prize: E. E. Spear.

Second Class—First Prize: C. M. Patten.

Second Prize: R. S. Davis.

Third Class—First Prize: M. E. Dow.

Fourth Class—First Prize: Douglas Sterrett.

Montague Gold Medal in Latin—J. H. Wynne and E. K. Broadus.

Roome Gold Medal in Greek—J. H. Wynne.

Lodge Gold Medal in French—C. M. Beall.

Hodgkins Gold Medal in Mathematics—Granville Smith.

Townsend Gold Medal for Elocution during the Session—J. H. Wynne.

The Webster and the Depew Gold Medals for Declamation at the Commencement, presented by B. H. Warner, Esq., awarded by a Committee of Judges—first award, C. M. Patten; second award, D. L. Chambers.

Honorable mention of John H. Wynne and R. S. Davis.

Prizes founded by the late Samuel Norment, Esq., and now given by Mrs. Norment, awarded to the highest-honor boys of the School:

First Prize—\$25 in gold: J. H. Wynne.

Second Prize—\$20 in gold: C. M. Patten.

Third Prize—\$15 in gold: D. L. Chambers.

Gold Medals for Punctuality and Deportment :

Four years—J. H. Wynne.
 Three years—R. S. Davis.
 Two years—G. E. Green, J. L. Riggles, and W. O. Roome, Jr.
 One year—D. L. Chambers, S. C. Peelle, A. C. Morgan, and H. S. Brown.

Honorable mention for an average over 90 per cent. :

First Class: E. K. Broadus, D. A. Greenlees, Granville Smith.
 Second Class: J. W. Beatty, D. L. Chambers, T. L. Clark, S. C. Peelle, J. W. White.
 Third Class: E. A. Beard, Quirof Harlan, A. C. Morgan.
 Fourth Class: H. W. Chittenden, Oscar Meehlin.

Graduates.

C. M. Beall,	English, French, Latin, Mathematics, Greek.
F. L. Biscoe,	English, French, Mathematics.
E. K. Broadus,	English, French, Latin, Mathematics.
H. S. Greene,	French, Latin, Mathematics.
D. A. Greenlees,	English, French, Mathematics.
W. O. Roome, Jr.,	English, French, Latin.
Granville Smith,	English, French, Mathematics.
H. E. Smith,	English, French, Latin, Mathematics.
E. E. Spear,	English, French, Latin, Mathematics, Greek.
W. G. Woodford,	English, French, Mathematics.
J. H. Wynne,	English, French, Latin, Mathematics, Greek.

Students in the Preparatory School.

Student.	Class.	Patron.
Wm. C. Armstrong,	First,	Gen. N. L. Jeffries.
Wm. M. Bailey,	Second,	Mr. Edward Bailey.
Edward A. Beard,	Second,	Mr. Henry Beard.
J. Wm. Beatty,	First,	Dr. H. W. Beatty.
Earl Biscoe,	Third,	Maj. H. L. Biscoe.
Milton E. Biedler,	Second,	Mr. A. J. Biedler.
Charles H. Bradley,	First,	Judge A. C. Bradley.
Evans Browne,	Fourth,	Mr. A. D. Browne.
Lorenzo S. Brown, Jr.,	Second,	Mr. L. S. Brown.
Herman Canfield, Jr.,	Third,	Dr. Herman Canfield.
Walter N. Carver,	Third,	Mr. F. N. Carver.
D. L. Chambers,	Second,	Mr. D. A. Chambers.
Horace W. Chittenden,	Third,	Mr. George B. Chittenden.
Claude Christman,	Second,	Mr. P. H. Christman.
John H. Clapp,	First,	Mr. J. M. Clapp.
Thatcher Clark,	First,	Mr. E. G. Clark.
Wm. Plummer Copeland,	Second,	Mrs. V. P. Wiggins.
David Currier, Jr.,	First,	Mr. David Currier.
Elroy Curtis,	First,	Hon. W. E. Curtis.
George K. Curtis,	First,	Hon. W. E. Curtis.
Reginald S. Davis,	First,	Mr. S. T. Davis.
George Dempsey,	First,	Mr. W. H. Dempsey.
T. Boyd Dixon,	First,	Dr. W. S. Dixon, U. S. N.
Lee S. Dorsey,	Second,	Mr. Wm. Dorsey.
Morris E. Dow,	Third,	Mrs. Wm. Coppinger.
Charles T. Dudley,	First,	Mr. W. W. Dudley.
Joseph P. Evans,	First,	Mr. Thomas P. Evans.
T. L. Evans,	Second,	Mr. Thomas P. Evans.
F. Norton Everett,	Second,	Mr. E. L. Everett.
Robert Farnham, Jr.,	First,	Dr. Robert Farnham.
Wm. Lowry Farnham,	Second,	Dr. Robert Farnham.
J. Spencer Francis,	First,	Mr. C. K. Francis.
Leon L. French,	Second,	Rev. J. L. French.
Donald C. Fugitt,	First,	Mr. N. B. Fugitt.
John P. Gilmer,	First,	Mrs. M. E. Gilmer.
James H. Grant, Jr.,	First,	Mr. James H. Grant.
G. Emery Green,	Second,	Hon. D. A. Green.

Student.	Class.	Patron.
R. Markwood Green,	Second,	Mr. John M. Green.
Thomas Dew Gresham,	Second,	Hon. Walter Gresham.
Wm. S. Gurley,	Fourth,	Mr. Wm. B. Gurley.
Albert M. Haden,	Second,	Mrs. Charlotte Haden.
Quirof Harlan,	First,	Mr. Burnes Harlan.
Fred. H. Hershler,	First,	Mr. Nathan Hershler.
Charles H. Holmead,	First,	Bishop Wm. Paret, LL.D.
Howard Hoover,	Third,	Mr. S. S. Hoover.
Alfred F. Hopkins,	Third,	Mrs. F. A. M. Hopkins.
Julian B. Huff,	Fourth,	Hon. George F. Huff.
Scott G. Ingram,	First,	Mrs. M. M. Ingram.
C. H. Lanza,	First,	Madame la Marquise Lanza.
M. F. Lanza,	Third,	Madame la Marquise Lanza.
Thomas J. Lynch,	Second,	Hon. Thomas Lynch.
Wm. S. Manning,	Second,	Dr. Wm. P. Manning.
Richard N. Mason,	First,	Prof. B. R. Mason.
Selma M. Mason,	Second,	Mr. W. V. Mason.
Oscar Meehlin,	Third,	F. S. Meehlin.
Armando A. de Mendonça,	Second,	Señor S. de Mendonça.
A. Clyde Morgan,	Second,	Mr. R. W. Morgan.
Frank R. Needham,	First,	Mr. C. W. Needham.
Harry Norment,	First,	Mrs. M. E. Norment.
Wm. Dunlop Owens,	Second,	Mrs. Thomas Owens.
Wm. H. Parker,	Third,	Mrs. E. T. Parker.
Conrad M. Patten,	First,	Mr. John D. Patten.
Stanton C. Peelle,	Second,	Hon. S. J. Peelle.
Preston B. Ray,	Second,	Mr. Alfred Ray.
George I. Raybold,	Second,	Mr. G. W. Raybold.
J. Lewis Riggles,	First,	J. R. Riggles.
Wm. W. Riley,	First,	Mr. T. R. Riley.
Wallace A. Ritchie,	Second,	Mr. J. S. Ritchie.
Herman Schade,	First,	Mr. Louis Schade.
Chas. R. Schmidt,	First,	Miss Flora Schmidt.
Alvin V. Skiles,	Second,	Mrs. K. W. Skiles.
Arthur P. Spear,	Second,	Gen. Ellis Spear.
Douglas D. Sterrett,	Third,	Dr. J. M. Sterrett.
H. Hatch D. Sterrett,	First,	Dr. J. M. Sterrett.
Robert Sterrett,	First,	Dr. J. M. Sterrett.
Wm. D. Sterrett,	Second,	Dr. J. M. Sterrett.
B. Gray Tunstall,	First,	Mr. A. A. Tunstall.

Student.	Class.	Patron
Joseph G. Tyssowski,	First,	Mr. J. Tyssowski.
Dennis D. Walker,	First,	Mr. J. N. Walker.
C. H. Weaver,	First.	Mrs. A. M. Weaver.
L. W. Weaver,	First,	Mrs. A. M. Weaver.
Jas. W. White.	First.	Mrs. M. H. White.
John Wignall,	Third.	Mrs. West.
Thom Williamson, Jr.,	Second.	Chief Engineer Thom Wil- liamson, U. S. N.
Graham Woodard,	Second.	Hon. F. A. Woodard.

Students in the Preparatory School . . . 85



TREASURER'S REPORT

PROPERTY AND FINANCES

COLUMBIAN UNIVERSITY,

FISCAL YEAR ENDING MAY 31, 1891.

PRINTED BY THE UNIVERSITY PRESS.

W. L. G. C. C.

H. J. C. C. C. C. C.

TREASURER'S REPORT
ON THE
PROPERTY AND FINANCES
OF THE
COLUMBIAN UNIVERSITY,

FOR THE
FISCAL YEAR ENDING MAY 31, 1894.

FROM THE UNIVERSITY PRESS.

WASHINGTON, D. C.
JUDD & DETWEILER, PRINTERS

1894

ANNUAL REPORT OF THE TREASURER.

Schedule "A" is a Detailed Statement of Receipts and Disbursements.

" "B," Statement of the Actual Receipts and Disbursements for the Last Two Years.

" "C," Statement of the Receipts and Disbursements of the Scholarship Funds and Sinking Fund—Medical Faculty Note.

" "D," Liabilities.

" "E," Investments of the Scholarships.

" "F," Investments of the Corcoran Endowment Fund.

" "G," Miscellaneous Investments.

" "H," Description and Assessed Valuation of Real Estate.

" "I," Table of Insurance.

Appended to the report is a detailed statement of the financial operations of the Medical and Dental Departments of the Columbian University from March 19, 1893, to March 19, 1894.

All of which is respectfully submitted.

ROBERT H. MARTIN,

Treasurer.

WASHINGTON, D. C., *June 1, 1894.*

SCHEDULE "A."

Detailed Statement of Receipts and Disbursements.

GENERAL FUND.

Credit balance per last report, May 31, 1893..... \$594 30

RECEIPTS.

Sundries:

Borrowed from American Security and Trust Co. on University's note.....	\$4,000 00	
Borrowed from Bell & Co. on University's note....	6,000 00	
		<u>10,000 00</u>

Rents:

222 Third street northwest, Mrs. C. B. Cutler.	\$929 50	
Lots 12 and 13, square 13, T. J. Callaghan.	\$499 92	
Lot 1, square south of 12, Littlefield & Alvord	325 00	
		<u>824 92</u>

Law Building: W. V. R. Berry.....	\$210 00	
F. T. Browning.....	180 00	
H. W. Garnett.....	385 00	
A. E. L. Keese.....	52 50	
R. B. Lewis.....	230 00	
W. H. Smith.....	96 00	
Enoch Totten.....	360 00	
Mackall & Maedel.....	120 00	
		<u>1,633 50</u>
		3,387 92

Interest:

On real-estate notes	\$6,236 03
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On Corcoran Endowment Fund notes:

Medical Faculty	\$500 00	
Robert W. Fenwick.....	60 00	
		<u>560 00</u>

On miscellaneous investments:

Medical Faculty. \$150 00

On bonds:

United States four per cents.	\$97 00	
District of Columbia three sixty-fives.	8 21	
Cosmos Club.	35 00	
Church of the Covenant.	185 00	
	<u>295 21</u>	
		\$7,241 24

Dividends on stocks:

Pennsylvania Telephone.	\$20 00	
Quinsigamond National Bank.	30 00	
First National Bank of New Bedford.	1 50	
	<u>51 50</u>	
		\$21,274 96

DISBURSEMENTS.

Salaries:

J. C. Welling, President, in full to May 31, 1894.	\$4,000 00
Allowance for clerk hire in full to May 31, 1894.	210 00
	<u>\$4,210 00</u>
R. H. Martin, Treasurer, in full to May 31, 1894.	1,750 00
H. G. Hodgkins, Registrar and Librarian, in full to May 31, 1894.	800 00
	<u>\$6,760 00</u>

Janitor's wages:

W. L. Lewis.	\$444 00
R. T. Harris.	320 82
E. Becket.	360 00
	<u>1,124 82</u>
	<u>\$7,884 82</u>

MISCELLANEOUS.

Repairs and materials.

University Building:

Bliss Engineering Co., repairing bells, door spring, and one cut-out	\$3 30	
M. F. Hobson, kalsomining, painting, and glazing	65 75	
P. W. Doyle, repairing brick-work.....	6 00	
Dodson & Hodgson, painting roof and two ventilators	189 50	
Johnson & Morris, repairs to steam-heat- ing apparatus.....	3 10	
Electrical Construction Co., repairing electric light system.....	2 00	
		\$269 65

Law Building:

P. W. Doyle, new chimney cap and repair- ing roof	\$7 00	
J. McGregor, repairs, materials, and labor.	25 73	
		32 73

Cutler House:

J. McGregor, repairs to building, materials, and labor.....	253 17	\$555 55
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Insurance:

University Building.....	\$100 00	
Furniture, etc., University Building.....	25 00	\$125 00
Law Building.....	24 00	
Cutler House, 222 Third street northwest.....	15 00	164 00

Water rents.

University Building.....	\$150 50	
Law Building	26 00	
Cutler House	37 50	214 00

Taxes—Real estate

Whole of tax for fiscal year ending June 30, 1894, on lots in squares south of 12, 13, 16, and 23, and in squares west of 23, S3, S7, S8, and S9 (unim- proved).....	\$180 94	
Whole of tax for year ending June 30, 1894, on lots south half of 13 and all of 14, square 489 (Law Building).....	343 08	
Whole of tax for year ending June 30, 1894, on lots 42 and 43, reservation 10 (No. 222 Third street S. W.).....	255 11	
		<hr/> \$1,079 13

Gas:

University Building.....	\$301 49	
Law Building.....	46 50	
		<hr/> 347 99

Advertising:

Home Mission Monthly.....	12 00	
J. C. Pratt (Y. M. C. A. Manual).....	10 00	
Charleston News and Courier.....	18 95	
Daily Postymme.....	20 20	
Kate Field's Washington.....	24 88	
The Examiner Co.....	24 00	
The Christian Inquirer.....	25 00	
The Churchman.....	22 68	
Louisville Courier Journal.....	42 00	
Atlanta Constitution.....	20 00	
The Nation (Graduate School).....	5 85	
		<hr/> 225 56

Printing:

Judd & Detweiler:		
General.....	\$1,048 35	
Graduate School.....	48 55	
		<hr/> \$1,096 90
A. G. Gedney.....	71 00	
Gibson Bros.....	37 50	
		<hr/> 1,205 40

Stationery:

A. G. Gedney.....	\$3 00	
W. Ballantyne & Son.....	21 30	
		<hr/> 24 30

Fuel		
J. T. Given.....		\$507 00
Sundries:		
R. H. Martin:		
Traveling expenses.....	\$62 50	
Music for reception.....	7 50	
Postage.....	88 24	
		\$158 24
Great Falls Ice Co.....		20 27
W. B. Moses & Son, matting.....		26 20
J. C. Welling, refreshments for reception.	\$250 00	
J. C. Welling, traveling expenses.....	45 00	
		295 00
C. & P. Telephone Co....		100 00
H. L. Hodgkins, postage.....		12 00
G. F. Honesty, removing ashes.....		2 10
J. S. Wimsatt, removing ashes.....		11 00
N. W. Burchell, supplies for janitor.....		6 90
J. B. Lambie, supplies for janitor.....		5 25
Wormley's Hotel, lunch for corporation meeting...		27 00
C. E. Gibbs, lunch for corporation meeting.....		30 00
National Safe Deposit Co., year ending July 3, 1894.		40 00
Assessment for membership in College Association of the Middle States and Maryland, year 1893-'94.		5 00
Bell & Co., interest.....		391 84
W. A. Boyd, two copies city directory.....		10 00
Royce & Marean, rent of Gardner clock, August, 1892, to August, 1893.....		20 00
Mrs. M. S. W. Day, typewriting.....		1 85
Rev. T. J. Morgan, University's <i>pro rata</i> share attor- ney's fee.....		62 50
J. P. Johnson, 1 door-spring and 1 check.....		10 00
D. A. Edwards, whisperphone.....		2 00
B. T. Sener, clerk hire.....		100 00
Transferred to College.....		3,809 92
		\$5,156 07
		\$17,363 75
Credit balance.....		3,911 23
		\$21,274 96

NOTE.—Interest due and unpaid, \$1,501.80.

ACADEMIC DEPARTMENT.

RECEIPTS.

College:

Tuition	\$4,555 00
Diplomas	18 00
Transferred from Law Department	\$1,005 00
Transferred from Preparatory Department	2,582 94
Transferred from General Fund	3,800 92
	<u>10,192 86</u>
	\$14,765 86

Preparatory School

Balance on hand May 31, 1893	1,574 85
Tuition	\$5,015 00
Rents, Admird Powell property	1,375 00
	<u>6,290 00</u>
	\$22,739 71

Note.—Tuition due the College, \$52 50; tuition due the Preparatory School, \$160 00.

DISBURSEMENTS.

Salaries.

Professor A. J. Huntington, in full to May 31, 1894	\$1,800 00
Professor S. M. Shute, in full to May 31, 1894	1,800 00
Professor C. E. Munroe, in full to May 31, 1894	2,425 00
Professor A. P. Montague, in full to May 31, 1894	\$1,800 00
Allowance as Principal of Preparatory School	<u>210 83</u>
	2,010 83
Professor J. H. Gore, in full to May 31, 1894	\$1,800 00
Salary as Secretary of Faculty, year ending May 31, 1894	<u>40 00</u>
	1,840 00
Professor J. MacB. Starnett, in full to May 31, 1894	1,800 00
Professor H. L. Hodgkins, in full to May 31, 1894	1,800 00
Professor L. D. Lodge, in full to May 31, 1894	<u>\$1,500 00</u>

Balance in full for allowance as Vice Principal Preparatory School for year 1892-'3.....	\$59 57	\$1,559 57
J. J. Chickering, Associate Principal Preparatory School, in full to May 31, 1894.....	1,600 00	
Instructor F. H. Jackson, in full to May 31, 1894...	769 85	
Instructor W. Aspinwall, in full to May 31, 1894...	769 85	
Instructor H. R. Pyne, in full to May 31, 1894.....	481 08	
Professor F. R. Fava, for instruction in drawing...	50 00	
Professor E. B. Hay, for instruction in penmanship and book-keeping.....	110 00	
		\$18,516 18
Janitor's Wages:		
Walter Honesty.....	275 00	
Repairs—Preparatory School:		
M. Shindler, repairing oil painting.....	\$10 00	
J. O. Akers, moving picture and repairing frame...	7 50	
M. F. Hobson, kalsomining and glazing.....	66 00	
Dodson & Hodgson, repairing roof, painting ma- terials, etc.....	242 55	
E. G. Story, repairing concrete, back area.....	8 00	
J. I. Atchison, connecting blowoff, boilers to sewer, materials, &c.....	7 00	
Huddleston Bros., repairing slate roof.....	23 00	
		364 05
Insurance:		
Powell house, 1707 I street N. W.....	12 50	
Water rents:		
Preparatory School building.....	41 50	
Taxes:		
Powell House, year ending June 30, 1894.....	345 38	
Printing—		
College:		
Judd & Detweiler.....	\$50 15	
A. G. Gedney.....	20 00	
E. B. Hay, engrossing diplomas.....	5 50	
		75 65

Preparatory School:

Judd & Detweiler,	\$27 47
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Stationery—

Preparatory School:

Wm. Ballantyne & Sons,	32 16
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College Laboratory:

Elmer & Amend,	96 21
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Fuel—

Preparatory School:

John T. Given,	139 50
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Sundries—

College:

Prof. L. Weber, music for commencement	21 00	
M. W. Galt & Bro., medals	104 00	
George F. Cram, atlas	4 00	
		\$129 00

Preparatory School:

W. G. Metzgerott & Co., hall for School exhibition	75 00	
Prof. L. Weber, music for exhibition	33 00	
J. J. Chickering, stamps, stationery, and repairs	5 00	
G. F. Homesty, removing ashes	1 75	
H. R. Pyne, postage on preparatory catalogues	3 82	
C. L. Gurley, tuition refunded	39 00	
Hygienic Ice Company, ice	4 20	
J. H. Chesley, supplies for janitor	3 55	
J. S. Winsatt, removing ashes	4 50	
George F. Cram, atlas	4 00	
N. W. Burchell, supplies for janitor	5 30	
Harris & Shafer, medals	63 05	
	233 17	362 17
Transferred to College		82,382 94
Total		\$22,730 71

LAW DEPARTMENT.

Balance on hand per last report, May 31, 1893 \$808 90

RECEIPTS.

Tuition:	
Regular	\$15,280 00
Post-graduate	1,450 00
	<u>\$16,730 00</u>
M. M. Parker prize.....	\$100 00
A. T. Britton prize.....	50 00
	<u>150 00</u>
Diplomas.....	312 00
	<u>\$17,192 00</u>
	<u>\$18,000 90</u>

NOTE.—Tuition due the Law School, \$940.00.

DISBURSEMENTS.

Salaries:

Professor W. S. Cox, in full to May 31, 1894	\$3,000 00
Professor W. A. Maury, in full to May 31, 1894.....	\$3,000 00
One-third of fees, Graduate School, for year ending May 31, 1894 . . .	483 33
	<u>3,483 33</u>
Professor J. M. Harlan, in full to May 31, 1894.....	2,000 00
Professor W. G. Johnson, in full to May 31, 1894 . . .	\$1,000 00
One-third of fees, Graduate School, for year ending May 31, 1894.....	483 34
	<u>1,483 34</u>
Professor D. J. Brewer, in full to May 31, 1894.....	500 00
Professor A. C. Bradley, in full to May 31, 1894....	325 00
Professor G. H. Emmott, in full to May 31, 1894....	250 00
Professor A. S. Worthington, in full to May 31, 1894 ..	200 00
Professor W. F. Mattingly, in full to May 31, 1894..	150 00
	<u>\$11,391 67</u>

Repairs:

J. C. Barker & Co., repairing electric lights in library	\$1 50	
J. McGregor, materials and labor.	34 44	
		<hr/> \$35 94

Lighting:

United States Electric Lighting Company		356 38
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Advertising:

The West Publishing Company	\$100 00	
The Nation	69 30	
		<hr/> 169 30

Printing:

Judd & Detweiler	\$147 33	
A. G. Gishney, diplomas, check-book, etc.	236 25	
E. B. Hay, engraving diplomas	78 00	
		<hr/> 461 58

Stationery:

Wm. Ballantyne & Sons		41 33
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Library:

Edward Thompson Co., American and English Encyclopedia of Law	\$9 00	
M. Curlander, vols. 75 and 76, Maryland Reports	8 00	
Bancroft-Whitney Company, American State Reports, vols. 30, 31, 32, 33, 34, and 35.	20 00	
W. H. Morrison's Son, U. S. Reports, Illinois Reports, Massachusetts Reports, New York Reports, and miscellaneous	78 50	
W. H. Lowdermilk & Co., miscellaneous	122 65	
		<hr/> 238 15

Prizes:

W. H. Keller, Senior class, Parker prize	100 00	
W. H. Keller, First Essay prize	40 00	
J. A. Higley, Second Essay prize	30 00	
R. Nixon, half of Britton prize	25 00	
R. E. Woods, half of Britton prize	25 00	
J. W. Barber, Third Essay prize	20 00	
		<hr/> 240 00

Sundries:

W. H. Rapley, rental of Academy of Music for commencement.....	\$100 00
Guy, Curran & Co., ribbon for diplomas.....	5 85
Transferred to Academic Department.....	4,000 00
W. A. Boyd, city directory.....	5 00
E. H. Martin, postage stamps.....	50 00
G. W. Rawlings, Treasurer, rental of Metzgerott Music Hall for Debating Society.....	65 00
W. B. Moses, table and chair.....	22 00
	<hr/> \$4,247 85
	\$17,182 20
Credit balance.....	818 76
	<hr/> \$18,000 00

SCIENTIFIC DEPARTMENT.

Balance on hand per last report, May 31, 1893..... \$282 50

Receipts:

Tuition.....	\$8,040 70
Diplomas.....	18 00
Deposits returnable to students.....	171 87
Laboratory material.....	326 87
Contributed by professors for advertising.....	38 56
Examination fees.....	15 00
	<hr/> 8,611 00
	<hr/> \$8,893 50

NOTE.—Tuition due the Scientific School, \$448.75.

DISBURSEMENTS.

Salaries:

Professor C. E. Munroe.....	\$987 08
Salary as Dean of Faculty, year ending May 31, 1894.....	116 62
	<hr/> \$1,103 70
Professor H. L. Hodgkins.....	1,158 08
Professor F. R. Fava.....	722 30
Professor S. M. Shute.....	657 18
Professor L. D. Lodge.....	503 07

Professor Harry King	\$468 30	
Professor J. H. Gore	277 85	
Professor G. P. Merrill	295 48	
Professor E. P. Lewis	152 65	
Professor A. E. Craven	164 54	
Professor H. Schottfeld	126 05	
Professor A. P. Montague	123 76	
Professor W. C. Winlock	56 32	
Professor A. W. Greeley	19 67	
Professor F. H. Knowlton	13 48	
Professor T. N. Gill	5 62	
Instructor J. E. Blomman	57 64	
	<hr/>	85,905 69

Repairs:

George Shilling, repairing barometer	\$12 50	
D. H. Washburn, dynamo, wire, tape, etc.	94 27	
J. I. Atchison, repairing sink, pipe in boiler room, etc.	10 50	
John McGregor, carpenter-work and materials	14 34	
S. E. Babbitt, blackboard	20 00	
J. C. Barker & Co., repairing electric lights in labo- ratory	1 00	
Richardson & Burgess, work on desks	12 75	
Bart & Drapps, hanging up engine and shafting	8 40	
	<hr/>	173 76

Gas and electric lighting:

Washington Gas Light Company	\$125 00	
United States Electric Lighting Company	15 21	
	<hr/>	140 21

Advertising:

The Scientific Publishing Company	\$96 04	
United States Naval Institute	12 50	
	<hr/>	108 54

Printing:

Judd & Detweiler	\$142 24	
A. G. Godney	8 00	
Gibson Brothers	4 50	
E. B. Hay, engrossing diplomas	3 50	
	<hr/>	158 24

Stationery:

William Ballantyne & Sons	\$9 68	
W. H. Cooper	1 60	
	<hr/>	11 28

Fuel	
J. T. Given	\$10 25

Laboratories.

Physical	
Eimer & Amend, apparatus	\$6 25

Coreoran

Bullock & Crenshaw, chemicals	\$192 32	
Eimer & Amend, chemicals	136 32	
T. A. Tschiffely, chemicals	2 40	
Richards & Co., chemicals	21 97	353 01

Mineralogical:

E. E. Howell, materials	\$15 00	
Eimer & Amend, materials	6 68	
	21 68	380 94

Sundries

Guy, Curran & Co., ribbon for commencement	\$3 30	
W. A. Boyd, 1 copy city directory	5 00	
R. H. Martin, freight on chemicals	\$17 11	
R. H. Martin, postage stamps	20 00	
	35 11	
W. B. Moses & Sons, 8 stools	10 00	300 11

Deposits returned:

Professor C. E. Munroe	\$62 84	
O. J. Schneider	16 38	
C. P. Phelps	19 94	
T. F. Maurin	20 31	
J. W. Purman	10 46	
G. P. Tucker	5 76	
W. B. Randall	<div style="display: inline-block; vertical-align: middle;"> <div style="display: flex; align-items: center;"> <div style="font-size: 2em; margin-right: 5px;">{</div> <div> 1892-'93, \$15 06 1893-'94, 9 26 </div> </div> </div>	24 32
Mrs. K. T. P. McElroy	2 38	
C. A. O. Rosell	26 52	155 86

Credit balance..

\$7,130 17
1,763 52
<hr/> \$8,893 69

GRADUATE SCHOOL.

RECEIPTS.

Tuition.	\$1,445 00
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DISBURSEMENTS.

Salaries:

Professor C. E. Munroe, in full to May 31, 1894.....	\$159 37	
Allowance for clerk hire to May 31, 1894.....	90 00	
		\$249 37
Professor J. M. Sterrett, in full to May 31, 1894.....	112 50	
Professor S. M. Shute, in full to May 31, 1894.....	89 99	
Professor G. P. Merrill, in full to May 31, 1894.....	75 93	
Professor A. S. Christie, in full to May 31, 1894.....	64 68	
Professor T. X. Gill, in full to May 31, 1894.....	53 43	
Professor Edgar Frisby, in full to May 31, 1894.....	47 81	
Professor J. C. Welling, in full to May 31, 1894.....	47 50	
Professor A. F. Craven, in full to May 31, 1894.....	47 49	
Professor A. J. Huntington, in full to May 31, 1894.....	45 00	
Professor L. D. Lodge, in full to May 31, 1894.....	38 74	
Professor F. H. Knowlton, in full to May 31, 1894.....	28 12	
Professor A. P. Montague, in full to May 31, 1894.....	22 50	
Professor E. P. Lewis, in full to May 31, 1894.....	22 49	
Professor O. T. Mason, in full to May 31, 1894.....	10 00	
Professor H. L. Hodgkins, in full to May 31, 1894.....	8 43	
Professor F. R. Fava, in full to May 31, 1894.....	8 43	
		\$972 41
Printing:		
Judd & Detweiler.....		\$5 24
Matriculation fee returned:		
H. L. Rice.....		10 00
		\$1,067 65
Credit balance.....		377 35
		\$1,445 00

SCHEDULE B.

Statement of the *actual receipts and disbursements in each department* for the fiscal years ending May 31, 1893 and May 31, 1894.

Receipts and Disbursements for Fiscal Year Ending May 31, 1893.

Department.	Balances May 31, '92	Receipts.	Disburse- ments.
College.....		\$4,755 00	\$13,005 89
Preparatory School (includes rent).....		6,435 00	4,860 15
Law School.....	\$5,112 97	17,613 13	14,447 14
Corcoran School.....	753 00	7,132 04	7,002 54
General Fund.....	1,757 50	12,023 57	12,455 88
Total	\$7,623 47	\$47,958 74	\$52,321 59

Actual Receipts and Disbursements for Fiscal Year Ending May 31, 1894.

Department.	Balance May 31, '93	Receipts.	Disburse- ments.
College.....		\$4,573 00	\$14,765 86
Preparatory School (includes rent)*.....	\$1,574 85	6,390 00	5,581 91
Law School.....	808 96	17,192 00	13,182 20
Corcoran School.....	282 50	8,611 00	7,130 18
Graduate School.....		1,445 00	1,067 65
General Fund † (includes \$10,000 borrowed)	594 30	120,680 66	13,553 81
Total	3,260 61	58,891 66	55,281 61

Excess of receipts over disbursements (excluding balances) for fiscal year ending May 31, 1894	3,610 05
Actual receipts (independent of balances) for year ending May 31, 1893.....	47,958 74
Actual receipts (independent of balances) for fiscal year ending May 31, 1894	58,891 66
Total for the two years	106,850 40
Average for the two years.....	53,425 20
Total receipts, including balances, for year 1892-1893	55,582 22
Total receipts, including balances, for year 1893-1894	62,152 27

*Actual Receipts and Disbursements in Each Department for Fiscal Year Ending
May 31, 1894.*

Department	Balance May 31, 93	Receipts 1893-1894	Total	Disburse- ments	Balance May 31, 1894
College		\$1,573 00	\$1,573 00	\$14,766 80*	
Preparatory School (includes rent)	\$1,574 85	6 20 00	7,664 85	7,581 01	
Law School	808 96	17,162 00	18,000 96	15,182 20	\$2,818 76
Concordia School	282 30	8,041 80	8,890 30	7,140 18	1,750 12
Concordia School		1,445 00	1,445 00	1,007 05	437 95
General Fund	594 30	20,080 00	21,274 30	19,534 84	1,739 46
Total	\$3,260 41	\$38,861 00	\$42,142 27	\$36,981 61	\$5,160 66

* \$1,000 transferred from the Law Department, \$7,840 transferred from the Preparatory School, and \$1,860 transferred from the General Fund, all of which are not included in the disbursements for these departments.

Tuition and Interest Due and Unpaid May 31, 1894.

College	\$52 50
Preparatory School	160 00
Law School	940 00
Concordia School	448 75
General Fund, interest	1,501 80
Total	\$3,103 05

SCHEDULE "C."

MARY LOWELL STONE SCHOLARSHIP FUND.

Concordia Scientific School:

Invested in note of John McGregor	\$2,000 00
Accrued interest to May 31, 1894 (held in the General Fund)	60 00
	\$2,060 00

ELTON FUND.

Cash balance as per last report and still on hand... \$50 64

Receipts:

Received from sale of bonds..... 5,000 00
\$5,050 64

Disbursements:

Invested in note of Mrs. R. K. F. and William G.
Oberteuffer 5,000 00
Credit balance \$50 64

WILLIE E. FITCH FUND.

Balance on hand per last report \$42 35

Receipts:

Interest for one year, at 6 per cent., on note of Josiah W. Mc-
Lachlen for \$1,200..... 72 00
\$4 35

Disbursements:

For Chemistry prize, awarded to Mr. C. P. Phelps 60 00
Credit balance \$24 35

SINKING FUND—MEDICAL FACULTY NOTE.

Balance on hand per last report \$0 80

Receipts:

From Dr. A. F. A. King, Dean 250 00
\$250 80

Disbursements:

Invested in note of G. N. Rider 250 00
Credit balance \$0 80

SCHEDULE "D."

LIABILITIES.

Note secured on University Building, 5 per cent.	\$18,000 00
Note secured on Law Building and Third-street house, 5 per cent.	16,000 00
Note secured on Preparatory School Building, 6 per cent.	4,434 13
Borrowed from Bell & Co. on note of Columbian University and loaned to the Medical Faculty.	5,000 00
Borrowed from Bell & Co. on the note of Columbian University for current expenses.	6,000 00
Borrowed from the American Security and Trust Co. for current expenses.	4,000 00
	<hr/> \$53,434 13

SCHEDULE "E."

Investments of the Scholarships.

ELTON FUND.

Chesapeake and Ohio Canal bonds, interest 6 per cent., payable January and July, Nos. 2041, 2053 to 2058, 2060, each \$1,000.	\$8,000 00
Nos. 1640, 1641, each \$500	1,000 00
	<hr/> \$9,000 00
Note of Roberta K. F. Obertentler and William G. Obertentler, dated March 23, 1894, payable in three years, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on part of lot 2, square 245	5,000 00
	<hr/> \$14,000 00

KENDALL FUND.

Chesapeake and Ohio Canal bonds, Nos. 1642, 1643,
each \$500..... \$1,000 00

Note of J. W. Hogg (assumed by J. T. Power, now
deceased), dated March 31, 1883, on or before five
years, at 4 per cent. Secured on lot 31, south
grounds Columbian University (1431 Chapin
street)..... 1,875 00

Note extended for three years from March 31,
1891, at 6 per cent.

Interest paid to May 5, 1894.

Invested in note of John McGregor, dated June 29,
1893, payable in five years, with interest at 6 per
cent. per annum, payable semi-annually, secured
by deed of trust on subplot 18, square 757..... 3,000 00
\$5,875 00

FARNHAM FUND.

Chesapeake and Ohio Canal bond No. 2164..... 1,000 00

DAVIS FUND.

Chesapeake and Ohio Canal bond No. 960..... 1,000 00

CARTER FUND.

Chesapeake and Ohio Canal bond No. 2165..... 1,000 00

WILLIE E. FITCH FUND.

Note of Josiah W. McLachlen, trustee of the Security Invest-
ment Company, dated September 26, 1891, payable in 3 years,
with interest at 6 per cent. per annum, payable semi-an-
nually, secured by deed of trust on lot 78, square 1008 ... 1,200 00

Interest paid to March 26, 1894.

Total \$24,075 00

SCHEDULE "F."

Investments of the Covenant Endowment Fund.

Bonds:

Church of the Covenant bonds, interest 5 per cent.,
payable January and July:

Nos. 187 to 189, each \$1,000	\$3,000 00
Nos. 32 to 35, each \$100.	400 00
	<hr/> \$3,400 00

Interest collected to January 1, 1894

Notes:

Two notes, W. E. Earle, dated May 31, 1893, one for
\$2,000, payable in one year, and one for \$18,000,
payable in five years, at 6 per cent.; interest pay-
able semi-annually, secured by deed of trust on
part of lot 1, Merrick's subdivision of square 181. \$20,000 00

Note of Mrs. Rebecca Ruter Springer, dated May 24,
1887, payable in three years, with interest at 5 per
cent. per annum, payable semi-annually, secured
by deed of trust on parts lots 6, 7, and 8, Law and
Carroll's subdivision of square 699. 7,500 00

Interest paid to May 24, 1894.

Time of payment of note extended for three
years from November 24, 1892; interest at 6 per
cent.

Note of Miss Mary E. Mann, dated May 10, 1886,
payable in three years, with interest at 6 per cent.
per annum, payable semi-annually, secured by
deed of trust on lots 26, 27, 44, 45, 46, and 47,
Lanier Heights. 1,000 00

Interest paid to May 10, 1894.

Note of Alice E. Birtwell and Daniel Birtwell, dated
April 1, 1890, payable in three years, with interest
at 6 per cent. per annum, payable semi-annually,
secured by deed of trust on part of lot 14, in
square 865. 2,000 00

Interest paid to April 1, 1894.

Time of payment extended for three years from
April 1, 1893.

Note of Archibald M. McLachlen and Robinson White, trustees of the Security Investment Company, dated May 7, 1891, payable in three years, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on lot 9, Lanier Heights..... \$3,000 00
Interest paid to May 7, 1894.

Note of Faculty of National Medical College—J. Ford Thompson, M. D., president, and A. F. A. King, M. D., dean—dated July 1, 1887, with interest at 5 per cent. per annum, payable semi-annually; \$250 to be paid annually as a sinking fund for redemption of notes..... 10,000 00
Interest paid to January 1, 1894.

Note of the Columbian University, dated September 20, 1882, payable in one year, with interest at 5 per cent. per annum, payable semi-annually, secured by deed of trust on Law Building and No. 222 Third street..... 16,000 00
Purchased from National Savings Bank.

Note of the Columbian University, dated September 26, 1882, payable in one year, with interest at 5 per cent. per annum, payable semi-annually, secured by deed of trust on original lots, 9, 10, 11, and part of 12, square 222 University Building and grounds)..... 18,000 00
Purchased from Riggs & Co. March 26, 1888.

Note of James B. Wimer, dated June 23, 1890, payable in three years, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on lot 33, Tuttle's subdivision of part of Widow's Mite..... 3,060 00
Interest paid to December 23, 1893.

Note of H. H. Barker (assumed by the Columbian University), dated April 9, 1881, payable in three years, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on sublots 5 and 6, square 250 (Preparatory School Building)..... 4,434 13
Purchased from the Louise Home April 9, 1888.

- Note of George N. Rider (assumed by Miss Mary E. Mann), dated March 7, 1890, payable in one year, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on lot 23, Lanier Heights. Payment extended 5 years from March 15, 1892. Interest paid to March 15, 1894. \$1,600 00
- Note of Miss Mary E. Mann, dated April 20, 1892, payable in five years, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on lot 59, Lanier Heights. 2,000 00
Interest paid to April 20, 1894.
- Note of John W. Hibbs, dated December 16, 1891, payable in three years, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on part of lot 671. 13,000 00
Interest paid to December 16, 1894.
- Three notes of Lucy J. and George M. Wheeler—two for \$10,000 each and one for \$5,000—dated October 20, 1891, payable in three years, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on lot 5, square 185 25,000 00
Interest paid to April 20, 1894.
- Note of Elizabeth M. Power and Mrs. Mary C. Peterson, dated May 5, 1892, payable in five years, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on lots 30 and 31, south grounds, Columbian University . . . 10,000 00
Interest paid to May 5, 1894.
- Note of Robert W. Fenwick for subscription. . . . 1,000 00
Interest paid to December 26, 1893.
- Note of Rudolph Goldschmid and Mathilde Goldschmid, dated March 28, 1894, payable in three years, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on part of lots 11 and 12, square 275. 2,500 00
- Note of Charles E. and Wilhelmina E. Burgess, dated April 2, 1894, payable in three years, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on lots 40, 41, 42, 43, and 44, square 711. 4,000 00

Note of Miss Lucy E. Knight, dated May 31, 1893,
payable in five years, with interest at 6 per cent.
per annum, payable semi-annually, secured by
deed of trust on lot 21, square 368. \$7,000 00

Note of Mrs. Clara M. Houghton, dated March 12,
1894, payable in three years, with interest at 6 per
cent. per annum, payable semi-annually, secured
by deed of trust on subplot 203, square 206. 6,500 00

Note of Harry Lee Rust, dated May 26, 1893, pay-
able in three years, with interest at 6 per cent. per
annum, payable semi-annually, secured by deed of
trust on part of lot 9, block 10, "Bloomingdale". 2,800 00
Interest paid to May 26, 1894.
Payment assumed by T. T. Moore.

Note of Harry Lee Rust, [dated May 26, 1893, pay-
able in three years, with interest at 6 per cent. per
annum, payable semi-annually, secured by deed of
trust on part of lot 9, block 10, "Bloomingdale" 2,800 00
Interest paid to May 26, 1894.
Payment assumed by E. Williamson.

Note of Harry Lee Rust, dated May 26, 1893, pay-
able in three years, with interest at 6 per cent. per
annum, payable semi-annually, secured by deed of
trust on part of lot 9, block 10, "Bloomingdale" 2,800 00
Interest paid to May 26, 1894.
Payment assumed by C. H. Keller.

Four notes of Albert B. Hines and Walter Hieston,
each for \$1,250, dated June 12, 1893, payable in
five years, with interest at 6 per cent. per annum,
payable semi-annually, secured by deed of trust
on lots 23, 24, 25, and 26, square south of square
104 5,000 00
Interest paid to December 15, 1893.

Note of Andrew Wilson, dated June 1, 1894, pay-
able in three years, with interest at 6 per cent. per
annum, payable semi-annually, secured by deed
of trust on lot 8, square 8, Eckington 2,000 00

Sundry notes on subscription (believed to be worth- less)	1,125 00
Amount of notes	\$174,119 13
	3,400 00
Total	\$177,519 13

SCHEDULE "G."

Miscellaneous Investments.

Certificate No. 5 for five shares Quinsigamond Na- tional Bank	\$500 00
Dividends paid April 1, 1894.	
Two notes of Miss Lillian G. Hayden of \$250 each, dated May 7, 1886, payable in one and two years respectively, with interest at 6 per cent. per annum, payable semi-annually, secured on lot 49, Lanier Heights.....	500 00
Interest paid to May 7, 1894.	
Time of payment of notes extended	
Ten notes of Faculty of National Medical College, each for \$500, dated October 24, 1893, payable in one, two, three, four, five, six, seven, eight, nine, and ten years respectively, with interest at 6 per cent. per annum, payable semi-annually	5,000 00
Interest paid to April 24, 1894.	
Invested in note of Charles F. Burgess and Willhel- mina F. Burgess for \$4,000, dated April 2, 1894, payable in three years, with interest at 6 per cent. per annum, payable semi-annually, secured by deed of trust on lots 40, 41, 42, 43, 44, square 741..	2,600 00
Pennsylvania Telephone Company certificate No. 1646 for eight shares, par value \$50 each.	400 00
Dividends paid to April 1, 1893.	— — — \$9,000 00

Sinking Fund Medical Faculty Note.

Church of Covenant bonds, interest at 5 per cent., payable January and July, Nos. 46, 47, and 48, each \$100.....	\$300 00
Interest collected to January 1, 1894.	
Invested in note of George N. Rider (Corcoran Endowment Fund).....	1,083 00
Loaned General Fund	15 00
Invested in note of Charles H. Burgess for \$1,000 (Corcoran Endowment Fund).	200 00
	<u>\$1,598 00</u>

Recapitulation.

Investments of the Scholarships	\$24,075 00
Investments of the Corcoran Endowment Fund.....	177,519 13
Investments of the Sinking Fund Medical Faculty Note....	1,598 00
Miscellaneous investments.....	9,000 00
Total	<u>\$212,192 13</u>

SCHEDULE "H."—Description and Assessed Valuation of Real Estate.

	Square.	Lot.	Assessed Value of Lot.	Value of Improvements.	Total Assessed Value.
University Building and Grounds.....	222	9, 10, 11, & 12.	\$58,534 00	\$80,000 00	\$138,534 00
Preparatory School and Grounds.....	250	Subs. 5 & 6.	4,050 00	21,700 00	25,750 00
Medical College.....	250	Of 6 & of 8, 1	6,050 00	5,000 00	11,050 00
Stable lot in rear of Medical College.	250	Of 6	2,505 00 1/2	1,500 00	4,005 00 1/2
Law Building.....	180	Of sub. 1.	3,351 00 1/2	1,500 00	4,851 00 1/2
Third-street house.....	14	Sub. 13.	3,378 00 1/2	8,700 00	12,078 00 1/2
Admiral Powell property.....	126	14	7,202 00 1/2	6,200 00	13,402 00 1/2
Unimproved lots.....		43	6,295 00 1/2	6,000 00	12,295 00 1/2
		Sub. C	4,887 00 1/2	6,000 00	10,887 00 1/2
		Of sub. D.	8,820 00 1/2	12,000 00	20,820 00 1/2
	South of	Of 1	1,170 00 1/2		1,170 00 1/2
	13	Sub.	3,970 00		3,970 00
	14	10	2,062 00		2,062 00
	15	11	1,351 00		1,351 00
	16	12	2,344 00		2,344 00
	17	13	2,354 00		2,354 00
	18	14	1,863 00		1,863 00
	19	15	2,139 00		2,139 00
	20	16	3,250 00		3,250 00
	21	17	3,360 00		3,360 00
	22	18	1,152 00		1,152 00
	23	19	295 00		295 00
	24	20	129 00		129 00
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SCHEDULE "I."—*Table of Insurance.*

Premises.	Amount.	Name of Company.	Location of Company.	No. of policy.	Pre- mium.	Policy expires.
Law Building.	\$3,000	Columbia.	Dist. of Col.	1,469	\$12 00	Jan. 20, 1895, 1 yr.
	3,000	Firemen's.	" "	17,531	12 00	Jan. 20, 1895, 1 yr.
Cutler (Third street house. .	5,000	Arlington.	" "	4,887	15 00	Jan. 5, 1895, 1 yr.
Preparatory Building. . . .	5,000	Columbia.	" "	980	50 00	Nov. 1, 1894, 3 yr.
	2,500	Franklin.	" "	8,640	25 00	Nov. 1, 1894, 3 yr.
	5,000	Columbia.	" "	1,888	20 00	Jan. 10, 1895, 1 yr.
	5,000	Riggs.	" "	5,553	20 00	Jan. 10, 1895, 1 yr.
University Building.	5,000	Arlington.	" "	5,273	20 00	Jan. 10, 1895, 1 yr.
	5,000	Corcoran.	" "	3,399	20 00	Jan. 10, 1895, 1 yr.
	5,000	Franklin.	" "	9,171	20 00	Jan. 10, 1895, 1 yr.
Furniture, fixtures, &c., in University Building.	5,000	(Liverpool & London and Globe.)	N. Y. Branch	3,217,702	25 00	June 13, 1894, 1 yr.
Powell house, No. 1707 I street.	5,000	Franklin.	Dist. of Col.	10,416	12 50	Feb. 11, 1895, 1 yr.
	2,500	Firemen's.	" "	19,013	25 00	Feb. 14, 1897, 5 yr.

Annual Financial Report of the Medical Department of the Columbian University from May 8, 1893, to May 7, 1894.

1893.	
May 8.	Cash balance remaining from last account \$795 58
1894.	
May 7.	Total receipts from lecture fees, etc., including \$1,400 from Dental Department, as per agreement 11,532 19
1893.	
Oct. 24.	Received loan from Columbian University 5,000 00
	Total receipts \$17,327 77
	Total payments to date 16,443 60
	Balance on hand \$884 17

The expenditure of \$16,443.60 may be summarily itemized as follows:

1893.	
May 23.	Columbian University, half year's interest on building loan of \$10,000, 5 per cent., due January 1, 1893, but unintentionally omitted at that time. (N. B. This item was <i>reported</i> last year, but was <i>not</i> included in the totals of last year's account \$250 00
July 1.	Columbian University, half year's interest on building loan of \$10,000, at 5 per cent. per annum 250 00
July 1.	Columbian University, annual payment of sinking fund on building loan 250 00
1894.	
March 31.	Columbian University, half year's interest on building loan of \$10,000, at 5 per cent., due January 1, 1894 omitted before 250 00
April 24.	Columbian University, half year's interest on new loan of \$5,000, at 6 per cent. per annum 150 00
May 7.	Salary of Professor J. Ford Thompson \$25 00
" "	" " W. W. Johnston 25 00
" "	" " A. F. A. King 25 00
" "	" " E. A. de Schweinitz 25 00
" "	" " D. W. Prentiss 25 00

May	7.	Salary of Professor D. K. Shute.....	\$825 00
"	"	" " " " Wm. P. Carr.....	825 00
"	"	" " " " Wm. M. Gray.....	300 00
"	"	" " " " V. A. Moore.....	100 00
"	"	" " " " Philip Jaisohn.....	100 00
"	"	" " " " Theobald Smith.....	150 00
"	"	" " " " C. W. Richardson.....	100 00
"	"	" " " " H. C. Yarrow.....	50 00
"	"	" " " " T. E. McArdle.....	50 00
"	"	" " " " Sterling Ruffin.....	50 00
"	"	" " " " E. L. Tompkins.....	50 00
"	"	" " " " W. K. Butler.....	45 00
"	"	" " " " A. C. Patterson.....	45 00
		Fuel.....	220 50
		Electric light bills.....	232 72
		Gas.....	52 00
		Advertising.....	506 26
		Repairs to buildings, etc.....	82 98
		Catalogues.....	130 50
		Imported manikins.....	110 00
		Commencement, prizes, music, collation, etc.....	356 05
		Fire insurance.....	83 34
		Postage.....	36 55
		Printing.....	56 00
		Janitors (two).....	404 25
		Dean's commission on \$11,532.19 (receipts for the year; at 24 per cent.	288 30
		Water.....	7 17
		Expended on reconstruction of building, laboratories, apparatus, etc., as follows:	
		J. Edward Turton, contractor.....	\$2,821 33
		Professor Fava, for plans, etc.....	38 70
		Lansburgh, for chairs in amphithe- ater.....	293 20
		Cobmes & Co., painting.....	268 00
		Columbia University, expense of get- ting loan.....	146 83
		Royce & Marean, electric plant, lamps, etc.....	270 00
		Lansburgh, for stools in laboratories.....	18 00

Eberly, for stoves and range, etc....	\$37 25	
Telephone.....	70 00	
Eimer & Amend, chemicals and apparatus.....	661 00	
Z. D. Gilman, chemicals and apparatus.....	62 69	
Bausch & Lomb, microscopes, etc...	805 53	
Keys, cartage, freight, express, etc..	17 55	
		5,510 08
Sundries of small amounts.....	401 90	
Total expenditure as above stated.....		\$16,443 60

Respectfully submitted by—

A. F. A. KING, M. D., *Dean.*

We, the undersigned, have examined the foregoing account of Dr. King and hereby certify that it is correct.

D. K. SHUTE, M. D.,
E. A. DE SCHWEINITZ,
Committee of Audit.

May 10, 1894.

Annual Financial Report of the Dental Department of the Columbian University from May 8, 1893, to May 7, 1894.

1893.	
May 8. Cash balance remaining from last account.....	\$259 44
1894.	
May 7. Receipts from lecture fees, etc., to date.....	3,673 30
Total receipts.....	\$3,932 74
Total expenditures to date.....	3,717 97
Balance on hand.....	\$214 77

The expenditure of \$3,717.97 may be summarily itemized as follows:

Salary of Dr. J. R. Hagan, demonstrator in Dental Infirmary, 9 months, at \$50 per month.....	\$450 00
Salary of Prof. H. C. Thompson.....	350 00
Salary of Prof. J. Hall Lewis.....	350 00

Salaries of four medical professors in Dental Department turned over to general fund of Medical Faculty as by agreement...	1,400 00
Paid Medical Department one fourth of annual interest on Building Loan of \$10,000.....	125 00
E. J. Lewis, dental materials for Infirmary.....	458 00
Catalogues and addressing same.....	79 00
Janitor.....	50 00
Advertising.....	92 26
Commencement expenses (prize, music, diplomas, etc.).....	68 00
J. Hall Lewis, additional expenses of Infirmary, etc.....	151 26
Dean's commission on \$3,673.30, receipts for the year, at 2½ per cent.....	91 83
Sundries.....	52 62
Total expenditure as above stated.....	\$3,717 97

Respectfully submitted by—

A. F. A. KING, M. D., *Dean.*

We, the undersigned, have examined the foregoing account of Dr. King and hereby certify that it is correct.

D. K. SHUTE, M. D.,

E. A. DE SCHWEINITZ,

Committee of Audit.

May 10, 1894.

REPORT OF AUDITING COMMITTEE.

To the Corporation of the Columbian University.

GENTLEMEN: The Auditing Committee have examined the bonds and notes, exhibiting the investment of the moneys pertaining to the various endowment funds and the miscellaneous securities of the Corporation now in the hands of the Treasurer, and find the foregoing schedules to be correct, and that the bonds, &c., are now safely kept in the vaults of the National Safe Deposit Company.

We have also carefully examined the foregoing statements of receipts and expenditures during the year ending May 31, 1893, and balances, and find the same to be correct and to agree with the vouchers.

J. ORMOND WILSON.

JOHN T. GIVEN.

C. W. NEEDHAM.

